

Galaxy

SCIENCE FICTION

MARCH 1951

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THE WIND BETWEEN THE WORLDS

By Lester del Rey

MARCH 1951

GALAXY

SCIENCE FICTION

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CONSENSUS

IT IS very doubtful if any science fiction magazine has ever received the volume of letters that *GALAXY Science Fiction* has drawn from readers. Just as remarkable is the breakdown, which is 10% from active fans, 90% from non-letter writers, who, having been assured they had a concrete vote in the planning of this magazine, wrote eagerly.

This breaking of habitual reluctance to participate shows attitudes toward publishing policy that are commonly absent from science fiction letter departments, appearing only in individual letters that are usually attacked by the vocal minority, which, because of its activity, is often regarded as the majority.

The fact is that non-writing readers have very definite preferences that are *not* shared by active fans, yet it has been the active fans who have mainly influenced the policies of science fiction magazines.

Let's take, first, the areas of agreement:

- The physical makeup of *GALAXY* has been overwhelmingly approved, less than 10% arguing for either large or pulp format. The large size, 8½" x 11", allows better display, but at the expense of portability. The pulp format is a relic of the 1920s and should properly

be displayed alongside illuminated manuscripts.

- 87% vote in favor of general articles, written briefly and in non-technical language. Almost the same percentage, 79%, favor an article every other issue or so, with the space thus saved devoted to fiction. The majority advises the minority to find its technical articles in science journals.

- Our policy of challenging writers to present themes that could not be sold elsewhere . . . themes too adult, too profound or revolutionary in concept . . . has been endorsed by active fans and non-vocal readers alike. You've seen examples of this in previous issues; there will be more and more as writers accept our high standards.

- Editorial balance has also been approved, although a turn in the vote on serials indicates that a compromise would be appreciated. Therefore, the next issue will not begin a serial, and future policy will be, wherever possible, to run an issue of complete stories between serials. And what will the next serial be? You'll get the announcement next month . . .

It's a publishing coup!

- Editorials, unfortunately, have the support of all but .03% and myself. Subject matter wanted, however, is a surprise, though it prob-

ably should not be: readers are interested in science fiction and would like it discussed. Now that the styling and slant of GALAXY have been decided for us by you, science fiction will be the main agenda of these editorials . . . how its ideas come into being, who writes it, the new directions that GALAXY is exploring, etc.

- There is no Five Star Shelf this month only because Groff Conklin is ill. The number who dislike his department is so small that it's not worth putting into percentage. More wanted the column held down, however, than expanded, so it will continue at three to four pages maximum.

NOW we come to the divergences between active fan and non-participating reader:

- 83% of all letters state flatly that they want no letter department. In a vote of this size, amounting to a poll across the country and through almost all occupations and levels of education, the conclusion is inescapable: the enormous majority of readers would rather have stories than read the mail of an infinitesimal number of fans. This is not minimizing the value of fandom, which has been loyal to science fiction even when loyalty was undeserved, but a realization that it is tyranny to force the majority to submit to the will of a minority. GALAXY will therefore not have a letter department. As requested

by many readers, though, letters of special interest will be discussed editorially.

- Story ratings have been demanded mainly by fans—and writers, who, of course, have to be kept happy. Twice a year, as a result, stories will be rated in editorials, according to reader preference . . . with my opinions, either in agreement or disagreement, and the reasons therefor. The first listing should be in the May issue, if votes are in on all six previous issues.
- Almost 100% of the vote was against fan coverage of any kind. This, it is rightly pointed out, is handled elsewhere more adequately than it could be here.

That brings us, finally, to a matter in which we of GALAXY disagree with some of our readers. The subject is art . . .

Yes, we have been experimenting both in art and in technical processes, since we believe that a rebirth in science fiction should not be breeched by art of the forceps school. This month marks another experiment: halftone reproduction of photographs and wash drawings. This could not be done without trying out our technical processes. As we extend control, we will present other improvements that are now being worked on.

You'll see them soon. The results, we think, will be far better—before too long—than present science fiction art.

—H. L. GOLD

The Wind

Before man could visit the nearest planets, he was traveling to the most distant stars. Pure paradox, of course, and one with doom built in!

I

IT WAS hot in the dome of the Bennington matter transmitter building. The metal shielding walls seemed to catch the rays of the sun and bring them to a focus there. Even the fan that was plugged in nearby didn't help much. Vic Peters shook his head, flipping the mop of yellow hair out of his eyes. He twisted about, so the fan could reach fresh territory, and cursed under his breath.

Heat he could take. As a roving troubleshooter for Teleport Interstellar, he'd worked from Rangoon to Nairobi—but always with men. Pat Trevor was the first of the few women superintendents he'd met. And while he had no illusions of masculine supremacy, he'd have felt a lot better working in shorts or nothing right now.

Besides, a figure like Pat's couldn't be forgotten, even though

denim coveralls were hardly supposed to be flattering. Cloth stretched tight across shapely hips had never helped a man concentrate on his work.

She looked down at him, grinning easily. Her arm came up to toss her hair back, leaving a smudge on her forehead to match one on her nose. She wasn't exactly pretty, but the smile seemed to illumine her gray eyes, and even the metal shavings in her brown hair couldn't hide the red highlights.

"One more bolt, Vic," she told him. "Pheooh, I'm melting . . . So what happened to your wife?"

He shrugged. "Married her lawyer right after the divorce. Last I knew, they were doing fine. Why not? It wasn't her fault. Between hopping all over the world and spending my spare time trying to

Between the Worlds

By LESTER del REY

Illustrated by DON SIBLEY



get on the moon rocket they were building, I wasn't much of a husband."

Unconsciously, his lips twisted. He'd grown up before DuQuesne discovered the matter transmitter, when reaching the other planets of the Solar System had been the dream of most boys. Somehow, that no longer seemed important to people, now that the world was linked through Teleport Interstellar with races all across the Galaxy.

MAN had always been a topsy-turvy race. He'd discovered gunpowder before chemistry, and battled his way up to the atom bomb in a scant few thousand years of civilization, before he had a worldwide government. Other races, apparently, developed space travel long before the matter-transmitter, and long after they'd achieved a genuine science of sociology.

DuQuesne had started it by investigating some obscure extensions of Dirac's esoteric mathematics. To check up on his work, he'd built a machine, only to find that it produced results beyond his expectations; matter in it simply seemed to disappear, releasing energy that was much less than it should have been, but still enough to destroy the machine.

DuQuesne and his students had rechecked their math against the results and come up with an answer they didn't believe. This time they built two machines and experiment-

ed with them until they worked together. When the machines were operating, anything within the small fields they generated simply changed places. At first it was just across a few yards, then miles—then half around the world. Matter was transmitted almost instantaneously from one machine to the other no matter how far apart they were.

Such a secret couldn't be kept, of course. DuQuesne gave a demonstration to fellow scientists at which a few reporters were present. They garbled DuQuesne's explanation of electron waves covering the entire universe that were capable of identity shifts, but the accounts of the actual experiment were convincing enough. It meant incredibly fast shipping anywhere on the globe at an impossibly low cost.

The second public demonstration played to a full house of newsmen and cold-headed businessmen. It worked properly—a hundred pounds of bricks on one machine changed place with a hundred pounds of coal on another. But then . . .

Before their eyes, the coal disappeared and a round ball came into existence, suspended in mid-air. It turned around as if seeking something, an eyelike lens focused on the crowd. Then it darted down and knocked the power plug loose. Nothing could budge it, and no tricks to turn on power again worked.

Even to the businessmen, it was

obvious that this object, whatever it was, had not been made on Earth. DuQuesne himself suggested that somewhere some other race must have matter transmittal, and that this was apparently some kind of observer. Man, unable to reach even his own moon yet, had apparently made contact with intelligence from some other world, perhaps some solar system, since there was no theoretical limit to the distance covered by matter transmittal.

It was a week of wild attempts to crack open the "observer" and of futile attempts to learn something about it. Vic's mind had been filled with Martians, and he had tried to join the thousands who flocked to DuQuesne's laboratory to see the thing. But his father had been stubborn—no fare for such nonsense. And Vic had had to wait until the papers sprang the final surprise, a week later.

THE ball had suddenly moved aside and made no effort to stop the machine from operating. When power was turned on, it had disappeared, and this time the Envoy had appeared. There was nothing outlandish about him—he seemed simply a normal man, stepping out of the crude machine.

In normal English, he had addressed the crowd with the casual statement that he was a robot, designed deliberately to serve as an ambassador to Earth from the Galactic Council. He was simply to

be the observer and voice of the Council, which was made up of all worlds having the matter transmitter. They had detected the transmitter radiation, and, by Galactic Law, Earth had automatically earned provisional status. He was here to help set up transmitter arrangements. Engineers from Betz would build transports to six planets of culture similar to Earth's, to be owned by the Council, as a non-profit business, but manned by Earthmen as quickly as they could be trained.

In return, nothing was demanded, and nothing more was offered. We were a primitive world by their standards, but we would have to work out our own advancement, since they would give no extra knowledge.

He smiled pleasantly to the shocked crowd and moved off with DuQuesne to await results. There were enough, too, from a startled and doubting world. The months that followed were a chaos of news and half-news. The nations were suspicious. There was never something for nothing. The Envoy met the President and Cabinet; he met the United Nations. India walked out; India walked back quickly when plans went ahead blithely without her. Congress proposed tariffs and protested secret treaties. The Envoy met Congress, and somehow overcame enough opposition to get a bare majority.

And the Betz II engineers came

on schedule. Man was linked to the stars, though his own planets were still outside his reach. It was a paradox that soon grew stale, but what, actually, would be the point in flying to Mars or Venus when we were in instant touch with the farthest parts of the Galaxy?

There were major wrenches to the economy as our heavy industries suddenly found that other planets could beat them at their work. Plathgol could deliver a perfect Earth automobile, semi-assembled and advanced enough to avoid our patent laws, for twenty pounds of sugar. The heavy industries folded, while we were still experimenting with the business of finding what we had to offer and what we could receive from other worlds. Banks had crashed, men had been out of work. The governments had cushioned the shock, and the new wonders helped to still the voices that suddenly rose up against traffic with alien worlds. But it had been a bitter period, with many lasting scars.

Now a measure of stability had been reached, with a higher standard of living than ever. But the hatreds were pretty deep on the part of those who had been hurt, and others who simply hated newness and change. Vic had done well enough, somehow making his way into the first engineering class out of a hundred thousand applicants. And twelve years had gone by . . .

Pat's voice suddenly cut into his thoughts. "All tightened up here, Vic. Wipe the scowl off and let's go down to check."

She collected her tools, wrapped her legs around a smooth pole, and went sliding down. He yanked the fan and followed her. Below was the crew. Pat lifted an eyebrow at the grizzled, cadaverous head operator. "Okay, Amos. Plathgol standing by?"

AMOS pulled his six-feet-two up from his slump and indicated the yellow stand-by light. Inside the twin poles of the huge transmitter that was tuned to one on Plathgol, a big, twelve-foot diameter plastic cylinder held a single rabbit. Matter transmitting was always a two-way affair, requiring that the same volume be exchanged. And between the worlds, where different atmospheres and pressures were involved, all sending was done in the big capsules. One-way handling was possible, of course, but involved the danger of something materializing to occupy the same space as something else—even air molecules. It wasn't done except as rigidly controlled experiments.

Amos whistled into the transport-wave interworld phone in the code that was universal between worlds, got an answering whistle, and pressed a lever. The rabbit was gone, and the new capsule was faintly pink, with something resembling a giant worm inside.

Amos clucked in satisfaction. "Tsiuna. Good eating, only real good we ever got from these things. I got friends on Plathgol that like rabbit. Want some of this, Pat?"

Vic felt his stomach jerk at the colors that crawled over the *tsiuna*. The hot antiseptic spray was running over the capsule, to be followed by supersonics and ultraviolet to complete sterilization. Amos waited a moment, then pulled out the creature. Pat hefted it.

"Big one. Bring it over to my place and I'll fry it for you and Vic. How does the Dirac meter read, Vic?"

"On the button." The seven per cent power loss was gone now, after a week of hard work in locating it. "Guess you were right—the reflector was off angle. Should have tried it first, but it never happened before. How'd you figure it out?"

SHE indicated the interworld phone. "I started out in anthropology, Vic. Got interested in other races, and then found I couldn't talk to the teleport engineers without being one, so I got sidetracked to this job. But I still talk a lot on anything Galactic policy won't forbid. When everything else failed, I complained to the Ecthinbal operator that the Betz II boys installed us wrong. I got sympathy instead of indignation, so I figured it *could* happen. Simple, wasn't it?"

He snorted, and waited while she gave orders to start business. Then, as the loading cars began to hum, she fell behind him, moving out toward the office. "I suppose you'll be leaving tonight, Vic. I'll miss you. You're the only troubleshooter I've met who did more than make passes."

"When I make passes at your kind of girl, it will be legal. And in my business, it's no life for a wife."

But he stopped to look at the building, admiring it for the last time. It was the standard Betz II design, but designed to handle the farm crops around, and bigger than any earlier models on Earth. The Betz II engineers made Earth engineering look childish, even if they did look like big slugs with tentacles and had no sense of sight.

The transmitters were in the circular center, surrounded by a shield wall, a wide hall all around, another shield, a circular hall again, and finally the big outside shield. The two opposite entranceways spiraled through the three shields, each rotating thirty degrees clockwise from the entrance portal through the next shield. Those shields were of inert matter that could be damaged by nothing less violent than a hydrogen bomb directly on them—they refused to soften at less than ten million degrees Kelvin. How the Betzians managed to form them in the first place, nobody knew.

Beyond the transmitter building,

however, the usual offices and local transmitters across Earth had not yet been built. That would be strictly Earth construction; and would have to wait for an off season. They were using the nearest building, an abandoned store a quarter mile away, as a temporary office.

Pat threw the door open and then stopped suddenly. "Ptheela!"

A PLATHGOLIAN native sat on a chair, with a bundle of personal belongings around her, her three arms making little marks on something that looked like a used pancake. The Plathgolians had been meat-eating plants once. They still smelled high to Earth noses, and their constantly shedding skin resembled shaggy bark, while their heads were vaguely flowerlike.

Ptheela wriggled her arms. "The hotel found regretfully that it had to decorate my room," she whistled in Galactic Code. "No other room and all other hotels say they're full. Plathgolians stink, I guess. So I'll go home when the transmitter is fixed."

"With your trade studies half done?" Pat protested. "Don't be silly, Ptheela. I've got a room for you in my apartment. How are the studies, anyhow?"

For answer, the plant woman passed over a newspaper, folded to one item. "Trade? Your House of Representatives just passed a tariff on all traffic through Teleport."

Pat scanned the news, scowling. "Damn them. A tariff! They can't tax interstellar traffic. The Galactic Council won't stand for it; we're still accepted only on approval. The Senate will never okay it!"

Ptheela whistled doubtfully, and Vic nodded. "They will. I've been expecting this. A lot of people are afraid of Teleport."

"But we're geared to it now. The old factories are torn down, the new ones are useless for us. We can't get by without the catalysts from Ecthinbal, the cancer-preventative from Plathgol, all the rest. And who'll buy all our sugar? We're producing fifty times what we need, just because most planets don't have plants that separate the levo from the dextro forms. All hell will pop!"

Ptheela wiggled her arms again. "You came too early. Your culture is unbalanced. All physics, no sociology. All eat well, little think well."

All emotion, little reason, Vic added to himself. It had been the same when the industrial revolution came along. Old crafts were uprooted and some people were hurt. There were more jobs now, but they weren't the familiar ones. And the motorists who gloated at first over cheap Plathgol cars complained when Plathgol wasn't permitted to supply the improved, ever-powered models they made for themselves.

Hardest of all had been the idea

of accepting the existence of superior races. A feeling of inferiority had crept in, turned to resentment, and then through misunderstanding of other races to an outright hatred of them. Ptheela had been kicked out of her hotel room; but it was only a minor incident in a world full of growing bitterness against the aliens.

"Maybe we can get jobs on Plathgol," Vic suggested harshly.

Ptheela whistled. "Pat could, if she had three husbands—engineers must meet minimum standards. You could be a husband, maybe."

Vic kept forgetting that Plathgol was backward enough to have taboos and odd customs, even though Galactically higher than Earth, having had nearly ten thousand years of history behind her to develop progress and amity.

THE televiser connecting them with the transmitter building buzzed, and Amos' dour face came on. "Screwball delivery with top priority, Pat. Professor named Douglas wants to ship a capsule of Heaviside layer air for a capsule of Ecthinal deep-space vacuum. Common sense says we don't make much shipping vacuums by the pound!"

"Public service, no charge," Vic suggested, and Pat nodded. Douglas was a top man at Caltech, and a plug from him might be useful sometime. "Leave it on, Amos—I want to watch this. Douglas has

some idea that space fluctuates, somehow, and he can figure out where Ecthinal is from a sample. Then he can figure how fast an exchange force works, whether it's instantaneous or not. We've got the biggest Earth transmitters, so he uses us."

As they watched, a massive capsule was put in place by loading machines, and the light changed from yellow to red. A slightly greenish capsule replaced the other. Amos signaled the disinfection crew and hot spray hit it, to be followed by the ultrasonics. Something crackled suddenly, and Amos made a wild lunge across the screen.

The capsule popped, crashing inward and scattering glass in a thousand directions. Pressure-glass; it should have carried a standard Code warning for cold sterilization and no supersonics. Vic leaped toward the transmitter building.

Pat's cry brought him back. There were shrieks coming from the televiser. Men in the building were clinging frantically to anything they could hold, but men and bundles ready for loading were being picked up violently and sucked toward the transmitter. As Vic watched, a man hit the edge of the field and seemed to be sliced into nothingness, his scream cut off, half-formed.

A big chunk of glass had hit the control, shorting two bus-bars, holding them together by its weight. The transmitter was locked

into continuous transmit. And air, with a pressure of fifteen pounds per square inch, was running in and being shipped to Ecthinbal, where the pressure was barely an ounce per square inch! With that difference, pressure on a single square foot of surface could lift over a ton. The poor devils in the transmitter building didn't have a chance.

He snapped off the televiser as Pat turned away, gagging. "When was the accumulator charged?"

"It wasn't an accumulator," she told him weakly. "The whole plant uses an electron-pulse atomotor, good for twenty years of continuous operation."

Vic swore and made for the door, with Pat and Ptheela after him. The transmitter opening took

up about two hundred square feet, which meant somewhere between fifty and five hundred thousand cubic feet of air a second were being lost. Maybe worse.

Ptheela nodded as she kept pace with him. "I think the tariff won't matter much now," she stated.

II

VIC'S action in charging out had been pure instinct to get where the trouble lay. His legs churned over the ground, while a wind at his back made the going easier.

Then his brain clicked over, and he dug his heels into the ground, trying to stop. Pat crashed into him, but Ptheela's arms lashed out, keeping him from falling. As he turned to face them, the wind struck at his



face, whipping up grit and dust from the dry ground. Getting to the transmitter building would be easy—but with the wind already rising, they'd never be able to fight their way back.

It had already reached this far, losing its force with distance, but still carrying a wallop. It was beginning to form a pattern, marked by the clouds of dust and debris it was picking up. The arrangement of the shields and entrances in the building formed a perfect suction device to set the air circling around it counter-clockwise, twisting into a tornado that funneled down to the portals. Men and women near the building were struggling frantically away from the center of the fury. As he watched, a woman was picked up bodily, whirled around,

and gulped down one of the yawning entrances. The wind strangled her cries.

Vic motioned Pat and Ptheela and began moving back, fast. Killing himself would do no good. He found one of the little hauling tractors and pulled them onto it with him, heading back until they were out of the worst of the rising wind. Then he swung to face Ptheela.

"Galactic rules be damned, this is an emergency, and we need help! What now?"

The shaggy Plathgolian made an awkward gesture with all three arms, and a slit opened in her chest. "Unprecedented." The word came out in English, surprisingly, and Pat's look mirrored his; Plathgoliens weren't supposed to be able to talk. "You're right. If I speak, I



shall be banished by the Council from Plathgol. Ask, nevertheless, I may know more—we've had the teleport longer—but remember that your strange race has a higher ingenuity quotient."

"Thanks." Vic knew what the seven husbands back on her home planet meant to her, if she were exiled, but he'd worry about that after he could stop worrying about the world. "What happens next?"

She dropped back to the faster Galactic Code for that. As he knew, the accidental turning on of the transmitter had keyed in the one on Ecthinbal automatically to receive, but not to transmit; the air was moving between Earth and Ecthinbal in one-way traffic. The receiving circuit, which would have keyed in the Ecthinbal transmit circuit had not been shorted. Continuous transmittal had never been used, to her knowledge; there was no certainty about what would happen. Once started, no outside force could stop a transmitter; the send and stop controls were synchronous, both tapped from a single crystal, and only that proper complex waveform could cut it off. It now existed as a space-strain, and the Plathgolians believed that this would spread, since the outer edges transmitted before matter could reach the center, setting up an unbalanced resonance that would make the force field grow larger and larger. Eventually, it might spread far beyond the whole building.

And, of course, since the metal used by the Betz II engineers could not be cut or damaged, there was no way of tunneling in.

"What about Ecthinbal?" Pat asked.

PTHEELA spread her arms. "The same, in reverse. The air rushes in, builds up pressure to break the capsule, and then rushes out—in a balanced stream, fortunately, so there's no danger of crowding two units of matter in one unit of space."

"Then I guess we'd better call the Galactic Envoy," Vic decided. "All he's ever done is to sit in an office and look smug. Now—"

"He won't come. He is simply an observer. Galactic Law says you must solve your own problem or die."

"Yeah." Vic looked at the cloud of dust being whirled into the transmitter building. "And all I need is something that weighs a couple tons per square foot—with a good crane attached."

Pat looked up suddenly. "How about one of the small atom-powered army tanks, the streamlined ones? Flavin could probably get you one."

Vic stamped down on the pedal, swinging the little tractor around sharply toward the office. The wind was stronger there, but still buckable. He clicked the televison on, noticing that the dust seemed to disappear just beyond the normal

field of the transmitter. It must already be starting to spread out.

"How about it?" he asked Ptheela. "If it spreads, won't it start etching into the transmitter and the station?"

"No. Betz II construction. Everything they built in has some way of grounding out the effect. We don't know how it works, but the field won't touch anything put in by the Betzians."

"What about the hunk of glass that's causing the trouble?"

For a moment she looked as if she were trying to appear hopeful. Then the flowerlike head seemed to wilt. "It's inside the casing, protected from the field."

Pat had been working on the private wire to Chicago, used for emergencies. She was obviously having trouble getting put through to Flavin. The man was a sore spot in Teleport Interstellar, one of the few political appointees. Nominal- ly, he was a go-between for the President and the Teleport group, but actually he was simply a job-holder. Finally Pat had him on the screen.

He was jovial enough, as usual, with a red spot on each cheek which indicated too many drinks for lunch. A bottle stood on the desk in front of him. But his voice was clear enough. "Hi, Pat. What's up?"

Pat disregarded the frown Vic threw her, and began outlining the situation. The panic in her voice

didn't require much feigning. Flavin blustered at first, then pressed the hold button for long minutes. Finally, his face reappeared.

"Peters, you'll have full authority, of course. I'll get a couple tanks for you, somehow, but I have to work indirectly." Then he shrugged and looked rueful. "I always knew this sinecure would end. I've got some slips here that make it look as if you had a national disaster."

His hand reached for the bottle, just as his eyes met Vic's accusing look. He shook his head, grinned sourly, put the bottle away in a drawer, untouched. "I'm not a fool entirely, Peters. I can do a little more than chase girls and drink. Probably be no use to you, but the only reason I drink is I'm bored, and I'm not bored now. I'll be out shortly."

FLAVIN apparently had influence. The tanks arrived just before he did. They were heavy, squat affairs, super-armored to stand up under a fairly close atomic bomb hit, but small enough to plunge through the portals of the transmitter building. Flavin came up as Vic and Pat were studying them. His suit was designed to hide most of his waistline, but the fat of his jowls shook as he hurried up, and there was sweat on his forehead, trickling down from under his toupee.

"Two, eh? Figured that's what I'd get if I asked for a dozen. Think you can get in—and what'll you do then?"

Vic shrugged. He'd been wondering the same thing. "If we could somehow ram the huge piece of glass and crack it where it was wedged into the wiring inside the shielding, it might release the shorted wires. That should effect an automatic cut-off. That's why I'm going with the driver. I can extemporize if we get in."

"Right," Pat agreed quickly. She hitched up her coveralls and headed for the other tank. "And that's why I'm going with the other."

"Pat!" Vic swung toward her. But it wasn't a time for stupid chivalry. The man or woman who could do the job should do it. He gave her a hand into the compact little tank. "Good luck, then. We'll need it."

He climbed into his own vehicle, crowding past the driver and wriggling into the tiny observer's seat. The driver glanced back, reached for the controls. The motor hummed quietly under them, making itself felt by the vibration of the metal around them. They began moving forward, advancing in low gear. The driver didn't like it as he stared through his tele-screen, and Vic liked it even less from the direct view through the gun slit. Beside them, the other tank got into motion, roughly paralleling them.

At first it wasn't too bad. They headed toward the north portal, going cautiously, and the tank seemed snug and secure. Beside him, Vic saw a tree suddenly come up by its roots and head toward the transmitter. It struck the front of the tank, but the machine pushed it brutally aside.

Then the going got rough. The driver swore at the controls, finding the machine hard to handle. It wanted to drift, and he set up a fixed correction, only to revise it a moment later. The tank began to list and pitch. The force of the wind increased geometrically as they cut the distance. At fifty feet, the driver's wrists were white from fighting to overcome each tilt of the wind.

VIC swallowed, wondering at the nerve of the man driving, until he saw blood running from a bitten lip. His own stomach was pitching wildly.

"Try another ten feet?" the driver asked.

"Have to."

They crawled by inches now. Every tiny bump threatened to let the force of the wind pitch them over. They had to work by feel. Vic wiped his forehead and wiped it again before he noticed that the palm of his hand was as damp as his brow.

He wondered about Pat and looked for her. There was no sight of the other machine. Thank God,

she'd turned back. But there was bitterness in his relief; he'd figured Pat was one human he could count on completely. Then he looked at the driver's wider screen, and sick shock hit him.

The other tank had turned turtle and was rolling over and over, straight toward the portal! As he looked, a freak accident bounced it up and it landed on its treads. The driver must have been conscious; only consummate skill accounted for the juggling that kept it upright then. But its forward momentum was still too strong, and it lurched for the portal.

Vic jerked against his driver's ear, pointing frantically. "Hit it!"

The driver tensed, but nodded. Though the shriek of the insane wind was too strong for even the sound of the motor, the tank leaped forward, pushing Vic down in his webbed and padded seat. The chances they were taking now were pure gamble, but the driver moved more smoothly with a definite goal. The man let the wind help him pick up speed, jockeying sidewise toward the other tank. They almost rolled over as they swung, bucking and rocking frantically, but the treads hit the ground firmly again. They were drifting across the wind now, straight toward the nose of the other tank.

Vic strained forward; the shock of hitting the tank knocked his head against the gun slit. He hard-

ly felt it as he stared out. The two tanks struggled, forcing against each other, while the portal gaped almost straight ahead.

"Hit the west edge and we have a chance," Vic yelled in the driver's ear. The man nodded weakly, and his foot pressed down harder on the throttle. Against each other, the two tanks showed little tendency to turn over, but they seemed to be lifted off the ground half the time.

Inch by slow inch, they were making it. Pat's tank was well beyond the portal, but Vic's driver was sweating it out, barely on the edge. He bumped an inch forward, reversed with no care for gears, and hitched forward and back again. They seemed to make little progress, but finally Vic could see the edge move past, and they were out of the direct gale into the portal.

A NEW screen had lighted beside the driver, and Pat's face was in it, along with the other driver. The scouring of the wind made speech impossible over the speakers, but the man motioned. Vic shook his head, indicated a spiral counter-clockwise and outward, to avoid bucking against the wind, with the two tanks supporting each other.

They passed the south portal somehow, though there were moments when it seemed they must be swung in, and managed to gain ten feet outward on the turn. The

next time around, they had doubled that. It began to be smoother going. The battered tanks lumbered up to their starting point and a little beyond.

Vic crawled out of the seat, surprised to find his legs stiff and weak; the ground seemed to reel under him. It was some comfort to see that the driver was in no better shape. The man leaned against the tank, letting the raw wind dry the perspiration on his uniform. "Bro-ther! Miracles! You're nervy, guy, but I wouldn't go in there again with the angel Michael."

Vic looked at the wind maelstrom. Nobody else would go in there, either. Getting within ten feet of the portal was begging for death, even in the tank—and it would get worse. Then he spotted Pat opening the tank hatch and stumbled over to help her out. She was bruised and more shaky than he, but the webbing over the seat had saved her from broken bones. He lifted her out in his arms, surprised at how light she was. His mind flicked over the picture of her tank twisting over, and his arms tightened around her. She seemed to snuggle into them, seeking comfort.

Her eyes came up, just as he looked down at her. There was no other way than kissing her to show his relief. "You scared hell out of me, Pat."

"Me, too." She was regaining

some color, and wriggled to be put down. "Do you know how I feel about what you did in there?"

Flavin cut off any answer Vic could have made, waddling up with his handkerchief out, mopping his face. He stared at them, gulped, shook his head. "Lazarus twins," he growled. "Better get in the car—there's a drink in the right door pocket."

Vic looked at Pat and she nodded. They could use it. They found the car and chauffeur waiting farther back. Vic poured her a small jigger, and took one for himself before putting the bottle back. But the moment's relaxation over cigarettes was better than the drink.

WHILE Flavin was talking to the tank drivers, a small roll of bills changed hands, bringing grins to their faces. Political opportunist or not, he knew the right thing to do at the right time. Now he came back and climbed in beside them.

"I've had the office moved back to Bennington. The intercity teleport manager offered us space." The locally owned world branches of intercity teleport were independent of Teleport Interstellar, but usually granted courtesy exchanges with the latter. "They'll be evacuating the city next, if I know the Governor. Just got a cease and desist order—came while you were trying to commit suicide. We're to stop transmitting at once!"

He grunted at Vic's grimace, and motioned the chauffeur on, just as a radiophone call reached them. Vic shook his head at the driver and looked out to see Ptheela ploughing along against the wind, calling to them. The plant woman's skin was peeling worse than ever.

Flavin followed Vic's eyes. "You going to let that ride with us? The way Plathies stink? Damned plants, you can't trust 'em. Probably mixed up in this trouble. I heard . . ."

"Plathgol rates higher in civilization than we do," Pat stated flatly.

"Yeah. Ten thousand years stealing culture we had to scratch up for ourselves in a thousand. So the Galactic Council tells us we've gbt to rub our noses to a superior race. Superior *plants*! Nuts!"

Vic opened the door and reached for Pat's hand. Flavin frowned, fidgeted, then reached out to pull them back. "Okay, okay. I told you that you were in charge here. If you want to ride with stinking Plathies—well, you're running things. But don't blame me if people start throwing mud." He had the grace to redden faintly as Ptheela came up finally, and changed the subject hastily. "Why can't we just snap a big hunk of metal over the entrances and seal them up?"

"Too late," Ptheela answered, sliding down beside Pat, her English drawing a surprised start from Flavin. "I was inspecting the tanks;

they're field-etched where they touched. That means the field is already outside the building, though it will spread more slowly without the metal to resonate it. Anyhow, you couldn't get metal plates up."

"How long will the air last?" Pat asked.

Vic shrugged. "A month at breathing level, maybe. Fortunately the field doesn't spread downward much, with the Betzian design, so it won't start working on the Earth itself. Flavin, how about getting the experts here? I need help."

"Already sent for them," Flavin grunted. They were heading toward the main part of Bennington now, ten miles from the station. His face was gray and he no longer seemed to notice the somewhat pervasive odor of Ptheela.

THEY drew up to a converted warehouse finally, and he got out, starting up the steps just as the excited cries of a newsboy reached his ears. He flipped a coin and spread the extra before them.

It was all over the front page, with alarming statements from the scientists first interviewed and soothing statements from later ones. No Teleport Interstellar man had spoken, but an interview with one of the local teleport engineers had given the basic facts, along with some surprisingly keen guesses as to what would happen next.

But above everything was the black headline:

BOMB TRANSMITTER, SAYS PAN-ASIA

The ultimatum issued by Pan-Asia was filled with high-sounding phrases and noble justification, but its basic message was clear enough. Unless the loss of air—air that belonged to everyone—was stopped and all future transmitting of all types halted, together with all dealings with "alien anti-terrestrials," Pan-Asia would be forced to bomb the transmitters, together with all other resistance.

"Maybe . . ." Flavin began doubtfully, but Vic cut him off. His faith in mankind's right to its accidental niche in the Galactic Council wasn't increasing much.

"No dice. The field is a space-strain that is permanent, unless canceled by the right wave-form. The canceling crystal is in the transmitter. Destroy that and the field never can be stopped. It'll keep growing until the whole Earth is gone. Flavin, you'd better get those experts here fast!"

III

VIC sat in the car the next morning, watching the black cloud that swirled around the station, reaching well beyond the old office. His eyes were red, his face was gray with fatigue, and his lanky body was slumped onto the seat. Pat looked almost as tired, though she had gotten some sleep. Now

she took the empty coffee cup and thermos from him. She ran a hand through his hair, straightening it, then pulled his head down to her shoulder and began rubbing the back of his neck gently.

Ptheela purred approvingly from the other side, and Pat snorted. "Get your mind off romance, Ptheela! Vic's practically out on his feet. If he weren't so darned stubborn, this should make him go to sleep."

"Romance!" Ptheela chewed the idea and spat it out. "All spring budding and no seed. A female should have pride from strong husbands and proven seeding."

Vic let them argue. At the moment, Pat's attention was soothing, but only superficially. His head went on fighting for some usable angle and finding none. He'd swiped all the knowledge he could from Ptheela, without an answer. Plathgol was more advanced than Earth, but far below the Betz II engineers, who were mere servants of the Council.

No wonder man had resented the traffic with other worlds. For centuries he had been the center of his universe. Now, like the Tasmanians, he found himself only an isolated valley of savages in a universe that was united in a culture far beyond his understanding. He'd never even conquered his own planets; all he'd done was to build better ways of killing himself.

Now he was reacting typically

enough, in urgent need of some race even lower, to put him on middle ground, at least. He was substituting hatred for his lost confidence in himself.

Why learn more about matter transmitting when other races knew the answers and were too selfish to share them? Vic grumbled, remembering the experts. He'd wasted hours with them, to find that they were useless. The names that had been towers of strength had proved no more than men as baffled as he was. With even the limited knowledge he'd pried from Ptheela, he was far ahead of them—and still further behind the needs of the problem.

THE gun Flavin had insisted he wear was uncomfortable, and he pulled himself up, staring at the crew of men who were working as close to the center of wind as they could get. He hadn't been able to convince them that tunneling was hopeless. All they needed was a one-millimeter hole through the flooring, up which blasting powder could be forced to knock aside the glass fragment. They refused to accept the fact that the Betz II shielding could resist the best diamond drills under full power for centuries. He shrugged. At least it helped the general morale to see something being done; he'd given in finally and let them have their way.

"We might as well go back," he

decided. He'd hoped that the morning air and sight of the station might clear his head, but the weight of responsibility had ruined that. It was ridiculous, but he was still in charge.

Flavin reached back and cut on the little television set. With no real understanding, he was trying to learn tolerance of Ptheela, but he felt more comfortable in front, beside the chauffeur.

Pat caught her breath, and Vic looked at the screen, where a newscast was showing a crowd in Denver tearing down one of the Earth-designed intercity teleports. Men were striking back at the menace blindly. A man stood up from his seat in Congress to demand an end to alien intercourse; Vic remembered the fortune in interstellar trading of levo-rotary crystals that had bought the man's seat and the transmitter-brought drugs that had saved him from death by cancer.

There were riots in California, the crackpot Knights of Terra were recruiting madly, and murder was on the increase. Rain had fallen in Nevada. There were severe weather disturbances throughout the country, caused by the unprecedented and disastrously severe low over Bennington. People were complaining of the air, already claiming they could feel it growing thinner, though that was sheer hysterical nonsense. Also, the Galactic Envoy was missing.

The editorial of the Bennington

Times came on last, pointing a finger at Vic for changing the circuits, but blaming it on the aliens who hoarded their knowledge so callously. There was just enough truth in the charge to be dangerous. Bennington was close enough to the transmitter to explain the undertones of lynch law that permeated the editorial.

"I'll put a stop to that," Flavin told Vic angrily. "I've got enough pull to make them pull a complete retraction. But it won't undo all the harm."

VIC felt the automatic, and it seemed less of a nuisance now. "I notice no news on Pan-Asia's ultimatum."

"Yeah. I hear the story was killed by Presidential emergency powers, and Pan-Asia has agreed to a three-day stay—no more. My information isn't the best, but I gather we'll bomb it ourselves if it isn't cleared up by then."

Vic climbed out at the local station office, with the others trailing. In the waiting room, a vaguely catlike male from Sardax waited, clutching a few broken ornaments and a thin sheaf of Galactic credits. One of his four arms was obviously broken and yellow blood oozed from a score of wounds.

But he only shrugged at Vic's whistled questions, and his answer in Code was unperturbed. "No matter. In a few moments I ship to Chicago, then home. My attack-

ers smelled strongly of hate, but I escaped." His whistle caught at a signal from the routing office, and he hurried off, with a final sentence. "They will survive, I am told."

Remembering the talons on the Sardaxan's hands, Vic grinned wryly. They were a peaceful race, but pragmatic enough to see no advantage in being killed.

Vic threw open the door to his little office and the four went in. It wasn't until he started toward his desk that he noticed his visitor.

The Galactic Envoy might have been the robot he claimed, but there was no sign of it. He was dressed casually in expensive tweeds, lounging gracefully in a chair, with a touch of a smile on his face. Now he got up, holding out a hand to Vic.

"I heard you were running things. Haven't seen you since I helped pick you for the first year class, but I keep informed. Thought I'd drop by to tell you the Council has given official approval to your full authority over the Earth Branch of Teleport Interstellar, and I've filed the information with the U. N. and your President."

Vic lifted his head. "Why me?"

"You've learned all the theory Earth has, you've had more practical experience with more stations than anyone else, and you've undoubtedly picked Ptheela's brains dry by now. You're the obvious man."

"I'd a lot rather see one of your high and mighty Galactic experts take over!"

The Envoy shook his head gently. "We've found that the race causing the trouble usually is the race best fitted to solve it. The same ingenuity that maneuvered the sabotage—it *was* sabotage, by the way—will help you solve it, perhaps. The Council may not care much for your grab first rule in economics and politics, but it never doubted that you represent one of the most ingenious races we have met. You see, there really are *no* inferior races."

"Sabotage?" Pat looked sick. "Who'd be that stupid and vicious?"

THE Envoy smiled faintly. "Who'd give the Knights of Terra money for a recruiting drive? I can't play much part in things here—I've got limited abilities, a touch of telepathy, a little more knowledge than you, and a certain in-built skill at handling political situations. Your own government is busy examining the ramifications of the plot now. It had to be an inside job, as you call it."

"Earth for Earth, and down with the transmitters," Vic summed it up.

The Envoy nodded. "They forget that the transmitters can't be removed without Council workers. And when the Council revokes approval, it destroys all equipment

and most books, while seeing that three generations are brought up without knowledge. You'd never go to semi-savagery and have to make a fresh start up. Well, I'm lucky—your President Wilkes is sympathetic, and your F. B. I. has been cooperative so far. If you solve things, the sabotage shouldn't prove too much of a problem. Good luck."

Flavin had been eying him, and his dislike flared up as the Envoy left. "A hell of a lot of nerve for guys who claim they don't interfere!"

"It happened to us twice," Ptheela observed. "We were better for it eventually. The Council's rules are from half a billion years of experience, with tremendous knowledge. We must submit."

"Not without a fight!"

"Without a fight," Vic said bluntly. "We're babes in arms to them. Anyhow, who cares? Congressional babble won't save us if we lose our atmosphere. But they can't see it."

The old idea—something would turn up. Maybe they couldn't cut off the transmitter from outside, and had no way of getting past the wind to the inside. But something would turn up.

He'd heard rumors of the Army taking over, and almost wished they would. As it stood, he had full responsibility and nothing more. Flavin and the Council had turned things over to him, but the

local cop on the beat had more power. It would be a relief to have someone around to shout even stupid orders, and get some of the weight off Vic's shoulders.

SABOTAGE! It couldn't even be an accident; the cockeyed race to which he belonged had to try to commit suicide and then expect him to save it.

He shook his head, vaguely conscious of someone banging on the door, and reached for the knob. "Amos!"

The sour face never changed expression as the corpselike figure of the man slouched in. Amos was dead—he'd been in the transmitter. They all realized it at once.

But Amos shook off their remarks. "Nothing surprising, just common sense. When I saw the capsule start cracking, I jumped into a capsule headed for Plathgol, set the delay, and tripped the switch. Saw some glass shooting at me, but I was in Plathgol before it hit. Went out and got me a mess of *tsiuna*—they cook fair to middling, seeing they never tried it before they met us. Then I showed 'em my pass, came through Chicago, here, and home. I figured the old woman would be worried. Nobody told me about the mess till I saw the papers. Common sense to report to you, so here I am."

"How much did you see of the explosion?" Pat asked.

"Not much. Just saw it was

cracking—trick glass, no temperature tolerance. Looked like Earth capsule color."

It didn't matter. It added to Vic's disgust to believe it was sabotage, but didn't change the picture otherwise. The Council wouldn't reverse its decision. They treated a race as a unit, making no exception for the behavior of a few individuals, whether good or bad.

Another knock on the door cut off his vicious circle of hopelessness. "Old home week here, evidently. Come in!"

The man who entered was the rare example of a fat man in the pink of physical condition, with no sign of softness. He shoved his bulk through the doorway as if he expected the two stars on his shoulders to light the way and awe all beholders. "Who is Victor Peters?"

Vic wiggled a finger at himself, and the general came over. He drew out an envelope and dropped it on the desk, showing clearly that acting as a messenger was far beneath his dignity. "An official communication from the President of the United States," he said mechanically, and turned to make his exit back to the intercity transmitters.

It was a plain envelope, without benefit of wax seals or ribbons. Vic ripped it open, looked at the signature and the simple letterhead, and checked the signature again. He read it aloud to the others.

"To Mr.—damn it, officially I've got a doctor's degree—to Mr. Vic-

tor Peters, nominally—Hah!—in charge of the Bennington Branch of Teleport Interstellar—I guess they didn't tell him it's *nominally* in charge of all Earth branches. Umm. You are hereby instructed to remove all personnel from a radius of five miles minimum of your Teleport Branch not later than noon, August 21, unless matters shall be satisfactorily culminated prior to that time. Signed, Homer Wilkes, President of the United States of America."

"Bombs!" Pat shuddered, while Vic let the message fall to the floor, kicking it toward the wastebasket. "The fools! The damned fools! Couldn't they tell him what would happen? Couldn't they make him see that it'll only make turning off the transmitter impossible forever?"

Flavin shrugged, dropping unaware onto the couch beside Ptheela. "Maybe he had no choice. Either he does it or some other power does it."

Then he came to his feet, staring at Vic. "My God, that's *tomorrow* noon!"

IV

VIC looked at the clock later, and was surprised to see that it was already well into the afternoon. The others had left him, Ptheela last when she found there was no more knowledge she could contribute. He had one of the elec-

tronic calculators plugged in beside him, and a table of the so-called Dirac functions propped up on it; when the press had discovered that Dirac had predicted some of the characteristics that made teleportation possible, they'd named practically everything for him.

The wastebasket was filled, the result of pure futility. He shoved the last sheet into it, and sat there, pondering. There had to be a solution!

Man's whole philosophy was built on that idea.

But it was a philosophy that included sabotage and suicide. What did it matter any—

Vic jerked his head up, shaking it savagely, forcing the fatigue back by sheer will. There *was* a solution. All he had to do was find it—before the stupidity of war politics in a world connected to a Galaxy-wide union could prevent it.

He pulled the calculator back, just as Flavin came into the room. The man was losing weight, or else fatigue was creating that illusion. He dropped into a chair as Vic looked up.

"The men evacuated from around the station?" Vic asked.

Flavin nodded. "Some of the bright boys finally convinced them that they were just wasting time, anyhow. Besides, the thing is still spreading, and getting too close to them. Vic, the news gets worse all the time. Can you take it?"

"Now what? Don't tell me

they've changed it to tomorrow morning."

"Tomorrow, hell! In two hours they're sending over straight block-busters, radar-controlled all the way. No atomics—yet—but they're jumping the gun, anyhow. Some nut convinced Wilkes that an ordinary eight-ton job might just shake things enough to fracture the glass that's holding the short. And Pan-Asia is going completely wild. I've been talking to Wilkes. The people are scared silly, and they're pressuring for quick war."

Vic nodded reluctantly and reached for the benzedrine he'd hoped to save for the last possible moment, when it might carry him all the way through. What difference did it make? Even if he had an idea, he'd be unable to use it.

"And yet . . ." He considered it more carefully, trying to figure percentages. There wasn't a chance in a million, but they had to take even that one chance. It was better than nothing. "It might just work—if they hit the right spot. I know where the glass is, and the layout of the station. But I'll need authority to direct the bombs. Flavin, can you get me President Wilkes?"

FLAVIN shrugged, reached for the televizor. He managed to get quite a way up by some form of code, but then it began to be a game of nerves and brass. Along his own lines, he apparently knew his business. In less than fifteen

minutes, Vic was talking to the President. For a further few minutes, the screen remained blank. Then another face came on, this time in military uniform, asking quick questions, while Vic pointed out the proper targets.

Finally the officer nodded. "Good enough, Peters. We'll try it. If you care to watch, you can join the observers. Mr. Flavin already knows where they are. How are the chances?"

"Not good. Worth trying."

The screen darkened again, and Flavin got up. The thing was a wild gamble, but it was better to jar the building than to melt its almost impregnable walls. Even Betz II metal couldn't take a series of hydrogen bombs, though nothing else could hurt it. And with that fury, the whole station would go.

They picked up Pat, and moved out to Flavin's car. Vic knew better than to try to bring Ptheela along. As an alien, she was definitely taboo around military affairs. The storm had reached the city now, and dense clouds were pouring down thick gouts of rain, leaving the day as black as night. The car slogged through it, until Flavin opened the door and motioned them out into a temporary metal shelter.

Things were already started. Remote scanners were watching the guided missiles come down, and eyes were operating in the bombs, working on infra-red that cut

through the rain and darkness. It seemed to move slowly on the screen at first, but picked up apparent speed as it approached the transmitter buildings. The shielding grew close, and Pat drew back with an involuntary jerk as it hit and the screen went black. Dead center.

But the remote scanners showed no change. The abrupt break in the air-motion where the transmitter field began, outside the shielding, still showed. Another bomb came down, and others, each spaced so as to hit in time for others to be turned back, if it worked. Even through the impossible tornado of rotating fury, it was super-precision bombing.

The field went on working just the same, far beyond the shielding, pulling an impossible number of cubic feet of air from Earth every second. They stopped watching the screen shown by the bomb-eyes at last, and even the Army gave up.

"Funny," one observer commented. "No sound, no flash when the bombs hit. I've been watching the remote scanners every time instead of the eye, and nothing happens. The bombs just disappear."

PAT shook herself. "They *can't* hit. They go right through the field, before they can hit. Vic, it won't matter if we do atom-bomb the station. It can't be reached."

But he was already ahead of her.

"The Ecthendar will love that. They've already been dosed with chemical bombs. Now guess what they'll do."

"Simple." It was the observer who got that. "Start feeding atom bombs into their transmitters back to us."

Then he shouted hoarsely, pointing through a window. From the direction of the station, a dazzle of light had lanced out sharply, and was now fading down. Vic snapped back to the remote scanner, and scowled. The field was still working; there was no sign of damage to the transmitter. If the Ecthendar had somehow snapped a bomb into the station, it must have been retransmitted before full damage.

The Army men stared sickly at the station, but Vic was already moving toward the door. Pat grabbed his arm, and Flavin was with them by the time they reached the waiting car.

"The Bennington office," Vic told the driver. "Fast! Somebody has to see the Ecthendar in a hurry, if it'll do any good."

"I'm going, too, Vic," Pat announced. He shook his head. "I'm going," she repeated stubbornly. "Nobody knows much about Ecthinal or the Ecthendar. You call in Code messages, get routine Code back. We can't go there without fancy pressure suits, because we can't breathe their air. And they never leave. But I told you I was interested in races, and I have been

trying to chit-chat with them. I know some things. You'll need me."

He shook his head again. "It's enough for one of us to get killed. If I fail, Amos can try, or Flavin. If they both fail—well, suit yourself. It won't matter whether they kill me there or send through bombs to kill me here. But if one of us can get a chance to explain, it may make some difference. I don't know. But it may."

Her eyes were hurt, but she gave in, going with him silently as he stepped into the local Bennington unit and stepped out in Chicago, heading toward the Chicago Interstellar branch. She waited patiently while the controlmen scouted out a pressure suit for him. Then she began helping him fasten it and checking his oxygen equipment. "Come back, Vic," she said finally.

HE CHUCKED a fist under her chin and kissed her quickly, keeping it casual with a sureness he couldn't feel. "You're a good kid, Pat. I'll sure try."

He pulled the helmet down and clicked it shut before stepping into the capsule and letting the seal snap shut. He could see her swing to the interstellar phone, her lips pursed in whistled code. The sound was muffled, but the lights changed abruptly, and her hand hit the switch.

There was no apparent time in-

volved. He was on Ecthinal, looking at a faintly greenish atmosphere, noticeable only because of the sudden change, and fifty pounds seemed to have been added to his weight. The transmitter was the usual Betz II design, and everything else was familiar except for the creature standing beside the capsule.

The Ecthendar might have been a creation out of green glass, coated with a soft fur, and blown by a bottlemaker who enjoyed novelty. There were two thin, long legs, multijointed, and something that faintly resembled the pelvis of a skeleton. Above that, two other thin rods ran up, with a double bulb where lungs might have been, and shoulders like the collar pads of a football player, joined together and topped by four hard knobs, each with a single eye and orifice. Double arms ran from each shoulder, almost to the ground.

He expected to hear a tinkle when the creature moved, and was surprised when he did hear it, until he realized the sound was carried through the metal floor, not through the thin air.

The creature swung open the capsule door after some incomprehensible process that probably served to sterilize it. Its Galactic Code whistle came through Vic's shoes from the floor. "We greet you, Earthman. Our mansions are poor, but they are yours. Our lives are at your disposal." Then the

formal speech ended in a sharp whistle. "Literally, it would seem. We die."

It didn't fit with Vic's expectations, but he tried to take his cue from it. "That's why I'm here. Do you have some kind of ruler? Umm, good. How do I get to see this ruler?" He had few hopes of getting there, but it never did any harm to try.

The Ecthindar seemed unsurprised. "I shall take you at once. For what other purpose is a ruler but to serve those who wish to see it? But—I trespass on your kindness in the delay. But may I question whether a strange light came forth from your defective transmitter?"

VIC snapped a look at it, and nodded slowly.

"It did."

Now the ax would fall. He braced himself for it, but the creature ceremoniously elaborated on his nod.

"I was one who believed it might. It is most comforting to know my science was true. When the bombs came through, we held them in a shield, but, in our error, we believed them radioactive. We tried a negative aspect of space to counteract them. Of course, it failed, since they were only chemical. But I had postulated that some might have escaped from receiver to transmitter, being negative. You are kind. And now, if you will

honor my shoulder with the touch of your hand, so that my portable unit will transport us both . . ."

Vic reached out and the scene shifted at once. There was no apparent transmitter, and the trick beat anything he had heard from other planets. Perhaps it was totally unrelated to the teleport machine.

But he had no time to ask.

A door in the little room opened, and another creature came in, this time single from pelvis to shoulders, but otherwise the same. "The ruler has been requested," it whistled. "That which the ruler is is yours, and that which the ruler has is nothing. May the ruler somehow serve?"

It was either the most cockeyed bit of naïveté or the fanciest run-around Vic had found, but totally unlike anything he'd been prepared for. He gulped, and began whistling out the general situation on Earth.

The Ecthindar interrupted politely. "That we know. And the converse is true—we too are dying. We are a planet of a thin air, and that little is chlorine. Now from a matter transmitter comes a great rush of oxygen, which we consider poison. Our homes around are burned in it, our plant life is dying of it, and we are forced to remain inside and seal ourselves off. Like you, we can do nothing—the wind from your world is beyond our strength."

"But your science . . ."

"Is beyond yours, true. But your race is adaptable, and we are too leisurely for that virtue."

Vic shook his head, though perhaps it made good sense. "But the bombs . . ."

A series of graceful gestures took place between the two creatures, and the ruler turned back to Vic.

"The ruler had not known, of course. It was not important. We lost a few thousand people whom we love. We understood, however. There is no anger, though it pleases us to see that your courtesy extends across the spaces to us. May your dead pass well."

That was at least one good break in the situation. Vic felt some of his worry slide aside to make room for the rest. "And I don't suppose you have any ideas on how we can take care of this . . ."

There was a shocked moment, with abrupt movements from the two creatures. Then something came up in the ruler's hands, vibrating sharply. Vic jumped back—and froze in mid-stride, to fall awkwardly onto the floor. A chunk of ice seemed to form in his backbone and creep along his spine, until it touched his brain. Death or paralysis? It was all the same; he had air for only an hour more. The two creatures were fluttering at each other and moving toward him when he abruptly and painlessly blacked out.

HIS first feeling was the familiar, deadening pull of fatigue as his senses began to come back. Then he saw that he was in a tiny room—and that Pat lay stretched out beside him!

He threw himself up to a sitting position, surprised to find that there were no after-effects to whatever the ruler had used. The damned little fool, coming through after him. And now they had her, too.

Her eyes snapped open, and she sat up beside him. "Darn it, I almost fell asleep waiting for you to revive. It's a good thing I brought extra oxygen flasks. Your hour is about up. How'd you manage to insult them?"

He puzzled over it while she changed his oxygen flask and he did the same for her. "I didn't. I just asked whether they didn't know of some way we could take care of this trouble."

"Which meant to them that you suspected they weren't giving all the help they could, after their formal offer when you came over. I convinced them it was just that you were still learning Code, whatever you said. They're nice, Vic. I never really believed other races were better than we are, but I do now—and it doesn't bother me at all."

"It'd bother Flavin. He'd have to prove they were sissies or something. How do we get out?"

She pushed the door open, and

they stepped back into the room of the ruler, who was waiting for them. It made no reference to the misunderstanding, but inspected Vic, whistled approval of his condition, and plunged straight to business.

"We have found part of a solution, Earthman. We die, but it will be two weeks before our end. First, we shall set up a transmitter in permanent transmit, equipped with a precipitator to remove our chlorine, and key it to another of your transmitters. Whichever one you wish. Ecthinal is heavy, but small, and a balance will be struck between the air going from you and the air returning. The winds between stations may disturb your weather, but not seriously, we hope. That which the ruler is yours. A lovely passing."

It touched their shoulders, and they were back briefly in the transmitter, to be almost instantly in the Chicago Branch. Vic was still shaking his head.

"It won't work. The ruler didn't allow for the way our gravity falls off faster and our air thins out higher up. We'd end up with maybe four pounds pressure, which isn't enough. So both planets die—two worlds on my shoulders instead of one. Hell, we couldn't take that offer from them, anyhow. Pat, how'd you convince them to let me go?"

She had shucked out of the pressure suit and stood combing her

hair. "Common sense, as Amos says. I figured engineers consider each other engineers first, and aliens second, so I went to the head engineer instead of the ruler. He fixed it up somehow. I guess I must have sounded pretty desperate, at that, knowing your air would give out after an hour."

They went through the local intercity teleport to Bennington and on into Vic's office, where Flavin met them with open relief and a load of questions. Vic let Pat answer, while he mulled over her words. Somewhere, there was an idea—let the rulers alone and go to the engineers. Some obvious solution that the administrators would try and be unable to use? He shoved it around in his floating memory, but it refused to trigger any chain of thought.

PAT was finishing the account of the Ecthindar offer, but Flavin was not impressed. Ptheela came in, and it had to be repeated for her, with much more enthusiastic response.

"So what?" Flavin asked. "They have to die, anyhow. Sure, it's a shame, but we have our own problems. Hey—wait! Maybe there's something to it. It'd take some guts and a little risk, but it would work."

Flavin considered it while Vic sat fidgeting, willing to listen to any scheme. The politician took a cigar out and lit it carefully, his

first since the accident; he'd felt that smoking somehow used up air. "Look, if they work their transmitter, we end up with a quarter of what we need. But suppose we had *four* sources. We connect with several oxygen-atmosphere worlds. Okay, we load our transmitters with atom bombs, and send one capsule to each world. After that, they either open a transmitter to us with air, or we let them have it. They can live—a little poorer, maybe, but still live. And we're fixed for good. Congress and the President would jump at it."

"That all?" Vic asked.

FLAVIN nodded. Vic's fist caught him in the mouth, spilling him onto the floor. The politician lay there, feeling his jaw and staring up at Vic. Then the anger was gone, and Vic reached down to help him up.

"You're half a decent guy and half a louse," Vic told him. "You had that coming, but I should have used it on some of the real lice around. Besides, maybe you have part of an idea."

"All right, no teeth lost—just the first cigar I've enjoyed in days." Flavin rubbed his jaw, then grinned ruefully. "I should have known how you feel. I just happen to believe in Earth first. What's this big idea of yours?"

"Getting our air through other planets. *Our* air. It's a routing job. If we can set up a chain so the air

going out of one transmitter in a station is balanced by air coming from another in the same station, there'd be a terrific draft. But most of it would be confined in the station, and there wouldn't be the outside whirlwind to keep us from getting near. Instead of a mad rush of air in or out of the building, there'd be only eddy currents outside of the inner chamber. We'd keep our air, and maybe have time to figure out some way of getting at that hunk of glass."

"Won't work," Flavin said gloomily. "Suppose Wilkes was asked to route through for another planet. He'd have to turn it down. Too much risk."

"That's where Pat gave me the tip. Engineers get used to thinking of each other as engineers instead of competing races—they have to work together. They have the same problems and develop the same working habits. If I were running a station and the idea was put to me, I'd hate to turn it down, and I might not think of the political end. I've always wanted to see what happened in continuous transmittal; I'll be tickled pink to get at the instrument rolls in the station. And a lot of the other engineers will feel the same."

"We're already keyed to Plathgol on a second transmitter," Pat added. "And the Ecthindar indicated they had full operation when it happened, so they're keyed to five other planets."

"Bomb-dropping starts in about four hours," Flavin commented. "After that, what?"

"No chance. They'll go straight through, and the Ecthindar can neutralize them—but one is pretty sure to start blasting here and carry through in full action. Then there'll be no other transmitter in their station, just a big field on permanent receive."

THE two engineers at the Chicago Branch were busy shooting dice when the four came through the intercity transmitter. There was no one else in the place, and no sign of activity. Word of the proposed bombing had leaked out, and the engineers had figured that answering bombs would come blasting back through Earth teleports. They knew what they'd have done, and didn't know of the Ecthindar philosophy. The engineers had passed the word to other employees, and only these two were left, finishing a feud of long standing in the time left.

"Know anything about routing?" Vic asked. When they indicated no knowledge, he chased them out on his Teleport Interstellar authority and took over. He had no need of more engineers, and they were cynical enough about the eventual chances there to leave gladly. Vic had never had any use for Chicago's manager and the brash young crew he'd built up; word shouldn't have gone beyond

the top level. If it leaked out to the general public, there'd be a panic for miles around.

But Chicago's routing setup was the best in the country; he needed it. Now how did he go about getting a staff trained to use it?

"Know how to find things here?" Flavin asked Pat. He accepted her nod, and looked surprised at Ptheela's equally quick assent. Then he grinned at Vic and began shucking off his coat. "Okay, you see before you one of the best traffic managers that ever helped pull a two-bit railroad out of the red, before I got better offers in politics. I'm good. You get me the dope, Vic can haggle on the transmitter phones, and I'll route it."

He *was* good. Vic watched him take over with surprise, and a sudden growing liking for the man. Flavin had probably been a lot more of a man, before he'd been shoved into politics. Maybe he'd have done less of drinking and picking up prejudices if he'd been working where he knew he was doing a good job. Certainly he had adapted well enough to the present situation, and he looked happier now as he took over.

Flavin's mind seemed to soak up all routing data at once, from a single look at the complicated blocks of transmitter groups and key-ins. He jumped from step to step without apparent thought, and he had to have information only once before engraving it on his

mind. It was a tough nut, since the stations housed six transmitters each, keyed to six planets—but in highly varied combinations; every world had its own group of tie-ins with planets, also. Routing was the most complicated job in the whole problem.

PLATHGOL was handled by Ptheela, who was still in good standing until the Council would learn of her breaking the law by talking to Vic. There was no trouble there. But trouble soon developed. Ecthinbal had been keyed to only two other planets, it turned out. Vromatchk was completely cold on the idea, and flatly refused. Ee, the other planet, seemed difficult.

It surprised him, because it didn't fit with Pat's theories of engineers at all. He scowled at the phone, then whistled again. "Your zeal is commendable. Now put an engineer on!"

The answering whistle carried a fumbling uncertainty of obvious surprise. "I—how did you know? I gave all the right answers."

"Sure. Right off the Engineer Rule Sheet posted over the transmitter. No real engineer worries that much about them; he has more things to think of. Put the engineer on."

The answer was still obstinate. "My father's asleep. He's tired. Call later."

The connection went dead at

once. Vic called Ecthinbal while clambering into the big pressure suit. He threw the delay switch and climbed into the right capsule. A moment later, an Ecthindar was moving the capsule on a delicate-looking machine to another transmitter. Something that looked like a small tyrannosaurus with about twenty tentacles instead of forelegs was staring in at him a second later, and he knew he was on Ee.

"Take me to the engineer!" he ordered. "At once!"

The great ridges of horn over the eyes came down in a surprisingly human scowl, but the stubbornness was less certain in person. The creature turned and led Vic out to a huge shack outside. In answer to a whooping cry, a head the size of a medium-sized freight car came out of the door, to be followed by a titanic body. The full-grown adult was covered with a thick coat of topy hair.

"Where from?" the Ee engineer whistled. "Wait—I saw a picture once. Earth.. Come in. I hear you have quite a problem there."

Vic nodded. It came as a shock to him that the creature could probably handle the whole station by itself, as it obviously did, and quite efficiently, with that size and all those tentacles. He stated his problem quickly.

The Looech, as it called itself, scratched its stomach with a row of tentacles and pondered. "I'd like to help you. Oh, the empress

would have fits, but I could call it an accident. We engineers aren't really responsible to governments, after all, are we? But it's the busy season. I'm already behind, since my other engineer got in a duel. That's why the pup was tending while I slept. You say the field spreads out on continuous transmit?"

"It does, but it wouldn't much more if there isn't too long a period."

"Strange. I've thought of continuous transmittal, of course, but I didn't suspect that. Why, I wonder?"

VIC started to give Ptheela's explanation of unbalanced resonance between the vacuum of the center and the edges in contact with matter, but dropped it quickly. "I'll probably know better when I can read the results from the instruments."

The Looech grumbled to itself. "You suppose you could send me the readings? We're about on a Galactic level, so it wouldn't strain the law too much."

Vic shook his head. "If I can't complete the chain, there won't be any readings. I imagine you could install remote cut-offs fairly easily."

"No trouble, though nobody ever seemed to think they might be needed. I suppose it would be covered under our emergency powers, if we stretch them a little. Oh, blast you, now I won't sleep for

worrying about why the field spreads. When will you begin?"

Vic grinned tightly as they arranged the approximate time and let the Looech carry him back to the capsule. He flashed through Ecthinal, and climbed out of the Chicago transmitter to find Pat looking worriedly at the capsule, summoned by the unintended call announcer.

"You're right, Pat," he told her. "Engineers run pretty much to form. Tell Flavin we've got Ee."

But there were a lot of steps to be taken still. He ran into a stumbling block at Norag, and had to wait for a change of shift, before a sympathetic engineer cut the red tape to clear him. And negative decisions here and there kept Flavin jumping to find new routes.

They almost made it, to find a decision had just been reversed on Seloo by some authority who had gotten word of the deal. That meant that other authorities would probably be called in, with more reverses, in time. Once operating, the engineers could laugh at authority, since the remote cut-off could be easily hidden. But time was running out. There were only twenty-seven minutes left before the bombs dropped, and it would take fifteen to countermand their being dropped.

"Give me that," Flavin ordered, grabbing the phone. "There are times when it takes executives instead of engineers. We're broken at

Seloo. Okay, we don't know where Seloo ships." His Galactic Code was halting, but fairly effective. The mechanical chirps from the Seloo operator leaped to sudden haste. A short pause was followed by an argument Vic was too tired to catch, until the final sentence. "Enad to Brjd to Teeni clear."

"Never heard of Brjd," he commented.

Flavin managed a ghost of a swagger. "Figured our lists were only partial, and we could stir up another link. Here's the list. I'll get Wilkes. Now that we've got it, he'll hold off until we see how it works."

It was a maze, but the list was complete, from Earth to Etchinbal, Ee, Petzby, Norag, Szpendrknopala-votschel, Seloo, Enad, Brjd, Teeni, and finally through Plathgol to Earth. Vic whistled the given signal, and the acknowledgments came through. It was in operation. Flavin's nod indicated Wilkes had confirmed it and held off the bombs.

Nothing was certain, still; it might or might not do the trick. But the tension dropped somewhat. Flavin was completely exhausted. He hadn't had decent exercise for years, and running from communications to routing had been almost continual. He flopped over on a shipping table. Ptheela bent over him and began massaging him deftly. He grumbled, but gave in, then sighed gratefully.

"Where'd you learn that?"

She managed an Earthly giggle. "Instinct. My ancestors were plants that caught animals for food. We had all manner of ways to entice them—not just odor and looks. I can sense exactly how your body feels in the back of my head. Mm, delicious!"

HE STRUGGLED at that, his face changing color. Her arms moved slowly, and he relaxed. Finally he reached for a cigar. "I'll have nightmares, I'll bet, but it's worth it. Oh, oh! Trouble!"

The communicators were chirping busily.

"Some of the rulers must be catching on and don't like it," Ptheela guessed.

To Vic's surprise, though, several did like it, and were simply sending along hopes for success. Etchinbal's message was short, but it tingled along Vic's nerves: "It is good to have friends."

Bennington was reporting by normal televisor contact, but while things seemed to be improving, they still couldn't get near enough to be sure. The field was apparently collapsing as the air was fed inside it, though very slowly.

Ptheela needed no sleep, while Flavin was already snoring. Pat shook her head as Vic started to pull himself up on a table. She led him outside to the back of one of the sheds, where a blanket covered a cot, apparently used by one of the supervisors. She pushed him

toward it. As he started to struggle at the idea of using the only soft bed, she dropped onto it herself and pulled him down.

"Don't be silly, Vic. It's big enough for both, and it's better than those tables."

It felt like pure heaven, narrow though it was. Beside him, Pat stirred restlessly. He rolled over, pulling himself closer to her, off the hard edge of the cot, his arm over and around her.

For a moment, he thought she was protesting, but she merely turned over to face him, settling his arm back. In the half-light, her eyes met his, wide and serious. Her lips trembled briefly under his, then clung firmly. His own responded, reaching for the comfort and end of tension hers could bring.

"I'm glad it's you, Vic," she told him softly. Then her eyes closed as he started to answer, and his own words disappeared into a soft fog of sleep.

The harsh rasp of a buzzer woke him, while a light blinked on and off near his head. He shook some of the sleep confusion out of his thoughts, and made out an intercom box. Flavin's voice came over it harshly and he flipped the switch.

"Vic, where the hell are you? Never mind. Wilkes just woke me up with a call. Vic, it's helped, but not enough. The field is about even with the building now. It's stopped shrinking, but we're still losing air. There's too much loss at Ethinbal

and at Ee—the engineer there didn't get the portals capped right, and Ethinbal can't do anything. We're getting about one-third of our air back. And Wilkes can't hold the pressure for bombing much longer! Get over here."

VI

"WHERE'S Ptheela?" Vic asked as he came into the transmitter room. She needed no sleep, and should have taken care of things.

"Gone. Back to Plathgol, I guess," Flavin said bitterly. "She was flicking out as I woke up. Rats deserting the sinking ship—though I was starting to figure her different. It just shows you can't trust a plant."

Vic swept his attention to the communicator panel. The phones were still busy. They were still patient. Even the doubtful ones were now accepting things; but it couldn't last forever. Even without the risk, the transmitter banks were needed for regular use. Many did not have inexhaustible power sources, either.

A new note cut in over the whistling now, and he turned to the Plathgol phone, wondering whether it was Ptheela and what she wanted. The words were English, but the voice was strange.

"Plathgol calling. This is Thlegaa, Wife of Twelve Husbands, Supreme Plathgol Teleport

Engineer, Ruler of the Council of United Plathgol, and hereditary goddess, if you want the whole letterhead. Ptheela just gave me the bad news. Why didn't you call on us before—or isn't our air good enough for you?"

"Hell, do you all speak English?" Vic asked, too surprised to care whether he censored his thoughts. "Your air always smelled good to me. Are you serious?"

The chuckle this time wasn't a mere imitation. Thlegaa had her intonation down exactly. "Sonny, up here we speak whatever our cultural neighbors do. You should hear my French nasals and Vromatchkan rough-breathings. And I'm absolutely serious about the offer. We're pulling the stops off the transmitter housing. We run a trifle higher pressure than you, so we'll probably make up the whole loss. But I'm not an absolute ruler, so it might be a good idea to speed things up. You can thank me later. Oh—Ptheela's just been banned for giving you illegal data. She confessed. When you get your Bennington plant working, she'll probably be your first load from us. She's packing up now."

Flavin's face held too much relief. Vic hated to disillusion the politician as he babbled happily about always knowing the Plathgolians were swell people. But Vic knew the job was a long way from solved. With Plathgol supplying air, the field would collapse back

to the inside of the single transmitter housing, and there should be an even balance of ingoing and outgoing air, which would end the rush of air into the station, and make the circular halls passable, except for eddy currents. But getting into the inner chamber, where the air formed a gale between the two transmitters, was another matter.

FLAVIN'S chauffeur was asleep at the wheel of the car as they came out of the Bennington local office, yet instinct seemed to rouse him, and the car cut off wildly for the station. Vic had noticed that the cloud around it was gone, and a mass of people was grouped nearby. The wind that had been sucked in and around it to prevent even a tank getting through was gone now, though the atmosphere would probably show signs of it in freak weather reports for weeks after.

Pat had obviously figured out the trouble remaining, and didn't look too surprised at the gloomy faces of the transmitter crew who were grouped near the north entrance. But she began swearing under her breath, as methodically and levelly as a man. Vic was ripping his shirt off as they drew up.

"This time you stay out," he told her. "It's strictly a matter of muscle power against wind resistance, and a man has a woman beat there."

"Why do you think I was cursing?" she asked. "Take it easy, though."

The men opened a way for him. He stripped to his briefs, and let them smear him with oil to cut down air resistance a final fraction. Eddy currents caught at him before he went in, but not too strongly. Getting past the first shielding wasn't too bad. He found the second entrance port through the middle shield, and snapped a chain around his waist.

Then the full picture of what must have happened on Plathgol hit him. Chains wouldn't have helped when they pulled off the coverings from the entrances, the sudden rush of air must have crushed their lungs and broken their bones, no matter what was done. Imagine volunteering for sure death to help another world! He had to make good on his part.

He got to the inner portal, but the eddies there were too strong to go farther. Even sticking his eyes beyond the edge almost caught him into the blast between the two transmitters. Then he was clawing his way out again.

Amos met him, shaking a gloomy head. "Never make it, Vic. Common sense. I've been there three times with no luck. And the way that draft blows, it'd knock even a tractor plumb out of the way before it could reach that hunk of glass."

Vic nodded. The tanks would take too long to arrive, anyhow, though it would be a good idea to have them called. He yelled to

Flavin, who came over on the run, while Vic was making sure that the little regular office building still stood.

"Order the tanks, if we need them," he suggested. "Get me a rifle, some hard-nosed bullets, an all-angle vise big enough to clamp on a three-inch edge, and two of those midget telesets for use between house and field. Quick!"

Amos stared at him, puzzled, but Flavin's car was already roaring toward Bennington, with a couple of cops leading the way with open sirens. Flavin was back with everything in twenty minutes, and Vic selected two of the strongest, leanest-looking men to come with him, while Pat went down to set the midget pickup in front of the still-operating televiser between the transmitter chamber and the little office. Vic picked up the receiver and handed the rest of the equipment to the other two.

IT WAS sheer torture fighting I back to the inner entrance port, but they made it, and the other two helped to brace him with the chain while he clamped the vise to the edge of the portal, and locked the rifle into it, somehow fighting it into place. In the rather ill-defined picture on the tiny set's screen, he could see the huge fragment of glass, out of line from either entrance, between two covering uprights. He could just see the rifle barrel also. The picture

lost detail in being transmitted to the little office and picked up from the screen for retransmittal back to him, but it would have to do.

The rifle was loaded to capacity with fourteen cartridges. He lined it up as best he could and tightened the vise, before pulling the trigger. The bullet ricocheted from the inner shield and headed toward the glass—but it missed by a good three feet.

He was close on the fifth try, not over four inches off. But clinging to the edge while he pulled the trigger was getting harder, and the wind velocity inside was tossing the bullets off course.

He left the setting, fired four more shots in succession before he had to stop to rest. They were all close, but scattered. That could keep up all day, seemingly.

He pulled himself up again and squeezed the trigger. There was no sound over the roar of the wind—



Don Sibley



and then there was suddenly a sound, as if the gale in there had stopped to cough.

A blast of air struck, picking all three men up and tossing them against the wall. He'd forgotten the lag before the incoming air could be cut! It could be as fatal as the inrush alone.

But the gale was dying as he hit the wall. His flesh was bruised from the shock, but it wasn't serious. Plathgol had managed to make their remote control cut out almost to the micro-second of the time when the flow to them had stopped, or the first pressure released—and transmitter waves were supposed to be instantaneous.

He tasted the feeling of triumph as he crawled painfully back. With this transmitter off and the others remote controlled, the whole battle was over. Ecthinbal had keyed out automatically when Earth stopped sending. From now on, every transmitter would have a full set of remote controls, so the trouble could never happen again.

He staggered out, unhooking the chain, while workmen went rushing in. Pat came through the crowd, with a towel and a pair of pants, and began wiping the oil off him while he tried to dress. Her grin was a bit shaky. He knew it must have looked bad when the final counterblast whipped out.

Amos looked up glumly, and Vic grinned at him. "All over, Amos."

The man nodded, staring at the

workmen who were dragging out the great pieces of glass from the building. His voice was strained, unnatural. "Yeah. Common sense solution, Vic."

THEN his eyes swung aside and his face hardened. Vic saw the Envoy shoving through, with two wiry men behind him. The Envoy nodded at Vic, but his words were addressed to Amos. "And it should have been common sense that you'd be caught, Amos. These men are from your F. B. I. They have the men who paid you, and I suppose the glass will prove that it was a normal capsule, simply shocked with superhot spray and overdosed with supersonics. Didn't you realize that your easy escape to Plathgol was suspicious?"

Pat had come up; her voice was unbelieving. "Amos!"

Amos swung back then. "Yeah, Pat, I'd do it again, and maybe even without the money. You think I like these God damned animals and plants acting so uppity? I liked it good enough before they came. Maybe I didn't get rid of them, but I sure came close."

The two men were leading him away as he finished, and Pat stared after him, tears in her eyes.

The Envoy broke in. "He'll get a regular trial in your country. It looks better for the local governments to handle these things. But I'll see if he can't get a lighter sentence than the men who hired him.

You did a good job, Vic—you and Pat and Flavin. You proved that Earth can cooperate with other worlds. That is the part that impresses the Council as no other solution could have. Your world and Plathgol have already been accepted officially as full members of the Council now, under Ecthinbal's tutelage. We're a little easier about passing information and knowledge to planets that have passed the test. But you'll hear all that in the announcement over the network tonight. I'll see you again. I'm sure of that."

He was gone, barely in time to clear space for Ptheela, as she came trooping up with eight thin, wispy versions of herself in tow. She chuckled. "They promoted me before they banished me, Pat. Meet my *eight* strong husbands. Now I'll have the strongest seed on all Earth. Oh, I almost forgot. A present for you and Vic."

Then she was gone, leading her husbands toward Flavin's car, while Vic stared down at a particularly ugly *tsiuna* in Pat's hands. He twisted his mouth resignedly.

"All right, I'll learn to eat the stuff," he told her. "I suppose I'll have to get used to it. Pat, will you marry me?"

She dropped the *tsiuna* as she came to him, her lips reaching up for his. It wasn't until a month later that he found *tsiuna* tasted better than chicken.

—LESTER DEL REY



Safe While at Rest: Commander Bill Talbot (Glenn Ford) leans casually against a *Loon* flying bomb

Missiles Over the Sea

BY WILLY LEY

Filmed in cooperation with the U. S. Navy, Columbia's film *The Flying Missile* reveals hitherto restricted data on rocket weapons.

I AM not in the habit of writing what may be called a movie review, but on occasion it does happen. In fact, I remember all three occasions. The first discussed *The Lost World*, the second was about *Frau im Mond*, and the third analyzed *Destination Moon*. This is number four—the title of the film, in this case, is *The Flying Missile*.

It concerns, as the title makes unmistakably clear, missiles, and specifically the U. S. Navy's *Loon*. More generally, it tells of some of the things which go on at the Navy's closely guarded Guided Missile Center at Point Mugu, near Oxnard, California, an hour's drive along the coast from Santa Monica.

But it is not a documentary film; it is a full length feature with the

primary purpose of entertainment. This, of course, will appeal to a few million people who would not look at a documentary film—on missiles or other things—even if admission were free. In this case, the fact that it is not principally a documentary film carries an almost unsuspected advantage. Being "fiction," it does not have to stick strictly to the things which have been done, but, like a science fiction story, it can look ahead a bit toward possible application.

Though the underlying problem is a military one, the film story is devoted partly to a human problem, partly to what might be called "story line." The latter consists of the efforts of a submarine skipper and his crew to get around, and especially ahead of, the guided missiles instruction courses they are subjected to at Point Mugu. They *thought* they could pick up a few missiles and experiment with them, preferably aboard their own submarine. Instead, they have to learn about the various types of missiles, how they are tested, how they work, the theory behind guiding, etc., etc. So they "obtain" without being detected—they think—the parts which make a launching rack for a missile, and put it together, only to discover in the end that no missiles happen to be available and that one cannot get around Navy Channels but has to go through them.

The other story, the human prob-

lem, is hinged around an accident which kills one of the crew and injures the skipper, paralyzing his legs. He does not recover because he does not *want* to recover; it needs the combined efforts of his superiors, his girl and, most important, the sight of his ship to make him capable of going back to the job he started.

PERSONALLY, I was, needless to say, mostly interested in the underlying military problem, which is an actual one. Also an acute one, created not so much by the "guided" missile, which, to the untrained mind, is particularly dangerous because it can be aimed—but the sheer existence of any long-range missile at all.

Only ten years ago, there was still some simplicity left in naval warfare. Unless an enemy aircraft carrier was around, a shore installation was safe from attack as long as the enemy warships were more than 10 miles away—20 miles in the case of a heavy battlewagon. The safety was, actually, far greater than that because the number of both heavy battleships and large aircraft carriers of any enemy is restricted and their movements are carefully checked and known.

Here a factor came in which is rarely mentioned except, maybe, in courses at the War College. That is the relationship between striking range on the one side and detecting range on the other. For some



With four jato takeoff units, the Loon, improved version of V-1, needs a launching ramp only slightly longer than itself

time a battleship had a longer striking range than its intended victim had detecting range. In other words, the ship could shoot over a longer distance than it could be seen.

In reality, that fact may never have made a difference, but it is important now.

Striking range in both naval and land warfare fell far below detecting range in the First World War, when aircraft was employed for observation purposes. But visual detection, whether from the lookout of a ship or from the cockpit of an airplane, is still hampered by weather. Much could go on under the cover of fog or rain which would not have gone undetected in fine weather.

This is one of the reasons why the submarine, although a highly vulnerable type of vessel, became so important through two wars. The striking range of a submarine is short; its guns carry, on the average, hardly more than six miles. That is also the maximum range of

a naval torpedo, but you rarely hit anything which is more than 2,000 yards away. But the submarine had the enormous advantage of being able to approach unseen. Long and sad statistics prove that the striking range of a submarine, though short, was still longer than the victim's detection range.

That changed decisively during the latter part of World War II. Just how it was done is still undisclosed, but it is no secret that the detecting devices work. I may add that, *in theory*, a submarine should not go undetected at all, even though radar waves are stopped by the water's surface. In theory the case is that we have a large body of a homogeneous liquid (sea water) with a non-homogeneous foreign body (the submarine) in it. There *should* be a physical principle which betrays both existence and location of that body, even if no engine makes a sound, no detectable amount of heat is radiated and every member of the crew holds his breath.

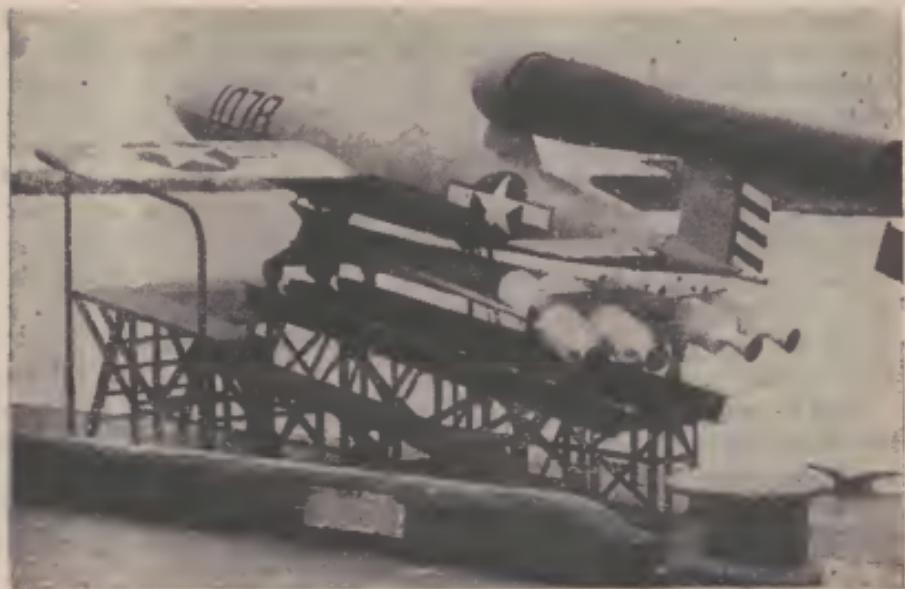
THE basic idea of the movie is built on this complex of facts. An "enemy" carrier, equipped with V-2 type long range rockets with atomic warheads, is approaching the coast. The carrier is far below the horizon, hence far out of radar range, since radar waves, naturally, do not follow the curvature of the earth. But the coast is within range of the carrier's missiles. (Actual range for a V-2 is 190 miles; missiles for twice that range can no doubt be built.) The only possible defense consists of sinking or at least seriously crippling the carrier before it can fire the rockets. That job is entrusted to submarines which are to torpedo the carrier.

But the detection range of the

carrier with its accompanying destroyers is far greater than the striking range of the subs. None of them can come close enough to strike. Which makes a frustrated submarine skipper wish he could fire missiles, too, so that he can strike from outside the detecting range.

Of course the missile suited for submarines as they now exist is not the V-2 type of liquid fuel rockets, but the V-1 type of flying bomb.

To keep the facts straight, I have to mention here that the U. S. Navy has actually test-fired a V-2 rocket from the flight deck of a carrier (the *Midway*) and that numerous small *Aerobee* high altitude rockets and one large *Viking*



Loon, prior to test firing at Navy's Guided Missile Center at Point Mugu, Cal.; the four Jato takeoff units show here

rocket were fired from the converted former seaplane tender *U.S.S. Norton Sound*. The V-2 happened to explode soon after takeoff, but the *Viking* reached a peak altitude of 106 miles. If it had been fired for range, it would have been around 210 miles. The Navy has also fired a V-1 type missile, the *Loon*, from the deck of a submarine.

Now the difference between a V-2 type long range rocket and a V-1 type *Loon* goes far deeper than the fact that one is rocket-propelled while the other has a simple pulse-jet engine. It also goes deeper than the otherwise very important fact that a V-2 takes around 18,000 man hours to make and a V-1 only about 1,000 man hours.

The essential difference between the two is that the V-2 rocket travels along a trajectory like an artillery projectile, while the V-1 type has a flight path like an airplane. One may say that the V-1 type relies on the *existence* of the atmosphere for motion, whereas the rocket moves *in spite of* the existence of the atmosphere. Those missiles which rely on the atmosphere have come to be called "cruising missiles." The V-2 rockets should logically be referred to as "trajectory missiles."

THE trajectory missiles are more expensive by far. They require the use of fuels that are not easy to handle. But once they have lifted

off the firing table, there is nothing the victim can do but watch them in his radar screen and wonder where they'll hit. It is, by the use of counter-missiles, not completely impossible to knock a trajectory missile off its trajectory, but it is, even in theory, an exceedingly difficult procedure.

The cruising missile, on the other hand, is interceptable. It can be shot down like an airplane by anti-aircraft guns and anti-aircraft rockets. It can be intercepted by fighter planes, which some British *Spitfire* pilots did on occasion without firing a shot. They flew alongside, got their wingtip under the wingtip of the missile, and flipped it over. The piloted plane could easily recover from that maneuver, but the missile crashed. Finally, the cruising missile can be caught by the steel cables of barrage balloons.

Just how interceptable a cruising missile is can be shown with a few figures from the report which the commanding officer of London's air defense, Air Marshal Sir Roderic Hill, drew up after the Second World War, and which was published as a supplement of the official *London Gazette* (Oct. 19, 1948). All in all, it is known from German records, the Germans fired 8,070 flying bombs (V-1) against London. Of these, a number crashed soon after takeoff or strayed off course. A total of 7,488 was reported over England: 3,957 of them were brought down (1,847 by



Actual takeoff of a Loon from the deck of a U. S. submarine; the dense white smoke is that of the solid fuel Jato units

fighters, 1,878 by guns, 232 by balloons); 1,111 fell outside the London target area, which was reached by 2,420 missiles.

But these figures are very misleading in one respect. They are overall figures, which include the early period when defending guns and defending fighters got into each other's territory and hair, and when the anti-aircraft equipment on the ground was not the best available. (No VT fuzes and M-9 gun directors at first.)

The statistics make more sense when drawn up for the various phases of attack and defense during the "Robot Blitz." During the first phase, 42.3 per cent of the flying bombs reported were brought down; then, after reorganization of defense, 58.6 per cent. During the

second phase of the attack, the percentage of bombs brought down climbed to 63.2, and, during the third phase, to 72.8.

Quite bad from the point of view of the attacker.

BUT this represented the use of cruising missiles in land warfare, with a fixed target (London), which did not move, and fixed launching installations, the location of which was reasonably well known and the direction of which was precisely known. And when you fire a cruising missile over land, there may be defending anti-aircraft batteries, airports for interceptor squadrons, installations for counter-missiles, and whatever else may be developed, on every square mile.

When you fire a cruising missile over water, there has to be a ship first to do some intercepting. Furthermore, since the ship-mounted firing platform is not fixed, it will be at an uncertain (and changing) distance and direction. If mounted on a submarine, the firing platform can even appear and disappear.

All of which shows why the Army is especially interested in trajectory missiles, while the Navy is paying much attention to cruising missiles. And ever since the V-1 was "naturalized," given its American citizenship papers, so to speak, it has been improved, too.

The original German type needed a launching platform about 150 feet long; the pilots of the RAF called them "ski sites" because of their appearance. The reason was that the pulse-jet engine can work when at rest, but does not deliver any useful thrust. In order to deliver useful thrust, it has to move with a speed of at least 150 miles per hour.

The Germans accomplished that by furnishing the takeoff ramp with a slotted tube. Inside the tube there was a piston with a projection reaching through the slot and hooking into the belly of the missile. The piston was pushed by the rapid decomposition of concentrated hydrogen peroxide, producing steam. The original V-1, after it had lifted off, accelerated to around 360 miles per hour and carried fuel for an average trip of 150 miles.

Overall length of the missile was 25½ feet, wing span about 17½ feet.

An installation like one of the original "ski sites" would be terribly cumbersome on shipboard and would also need a large ship to accommodate it. But the Navy has learned to do without such a long takeoff ramp. As a matter of fact, it uses ramps only slightly longer than the missiles themselves!

THE necessary acceleration is now supplied by four Jato solid-fuel takeoff units, attached to the cross bar of a T-shaped structure on which the missile rests. When the Jato units have supplied the initial impetus and the *Loon* moves under its own power, the attachment simply drops off.

The dimensions of the *Loon* are still roughly the same as those of the original V-1, but the range has been somewhat increased. And the speed seems to be higher by about 10 per cent, which makes hitting a missile in flight somewhat more difficult when you fire from below. At the film's combat test in the Pacific, a submarine-launched *Loon* flew through the flak thrown up by a long string of assorted war vessels. Accident, of course, but one which tends to point out the difference between a missile over land and a missile over the sea.

Suddenly, as a result, the submarine has a striking range of over 150 miles. But the radar detection

range is still the horizon, even though it is the horizon as seen from the height of the radar antenna. And the range of the most highly developed submarine detector is not apt to be longer than that; most likely, it will be shorter. The submarine, therefore, can fire some 15 times as far as its detection range, unless aerial reconnaissance is complete and effective. Likewise, the striking range of a big ship, equipped for trajectory missiles, has gone up to 15 or 20 times the probable detection range—reliable radar detection, I mean, which is not influenced by fog, storm, sleet, rain or moonless night.

Of course this, too, works both ways.

The film shows this by repeating the war-game setup of the opening scenes. Again there is an "enemy" carrier with trajectory missiles approaching the coast. Again the defending (and submerged) submarines are handicapped by the discrepancy between their striking range and the carrier's detection range.

But now there is another group of missile-carrying submarines. Being merely converted for this purpose and not designed as missile subs in the first place, they cannot submerge as long as they have their missiles on deck, or, at least, not without ruining the missiles. But they are far out of detection range and their presence is, so far, unsuspected by the carrier.

And the carrier is well within striking range of the missiles . . .

DURING the Second World War, the Germans had a small missile, the Henschel Hs-293, resembling, more or less, a good-sized model airplane. It was carried under the wing of a fighter plane and launched against Allied merchantmen. It was propelled by a rocket unit and guided by radio from the launching plane.

Of course, everybody was well inside everybody else's detection range, and the striking ranges were almost evenly matched. For that reason, the planes had to operate from a distance which was at the extreme limit of effectiveness. Hence they missed as often as not, yet they did account for a number of our ships. (We had a quite similar missile, the *Bat*, in the Pacific.) As became known from captured plans, the Germans were about to improve the performance of this missile by putting a television receiver into the nose.

The end of the war prevented them from finishing that logical development, and the missile may have been too small to be really effective, in any case.

But a missile like the *Loon* definitely is not, and we have both the time and the technology to perfect it. The ingenuity, too, as *The Flying Missile* amply demonstrates.

When I watched the film in a private showing, it was, naturally,



Difficult to hit, a Loon flies through heavy flak thrown up by U. S. warships during naval war games held in the Pacific

with the eyes of an engineer who has worked with rockets, both in theory and in practice, for almost two and a half decades. There is, in other words, little of novelty in them for me, though *The Flying Missile* did reveal certain facts that had been restricted until now and in which I found considerable professional interest.

But if I had seen it 25 years ago, when rocketry still existed only in arid equations on paper, when its supporters were regarded as mental defectives and the moon seemed centuries away . . .

I think I would have seen it every day for a month.

The middle-aged taxpayer, seeing *The Flying Missile*, is likely to reflect that there is very positively something being done with his money at Point Mugu. Others who are still far from being middle-aged, no matter what their years total, will feel the thrill of seeing a dream of science fiction that is solid reality now. And I suspect the film may initiate careers that might have been different.

Mine would not have been.

—WILLY LEY



THE OTHER NOW



By MURRAY LEINSTER

**He knew his wife was dead, because he'd seen her buried.
But it was only one possibility out of infinitely many!**

IT WAS self-evident nonsense. If Jimmy Patterson had told anybody but Haynes, calm men in white jackets would have taken him away for psychiatric treatment which undoubtedly would have been effective. He'd have been restored to sanity and common sense, and he'd probably have died of it. So to anyone who liked Jimmy and Jane, it is good that things worked out as they did. The facts are patently impossible, but they are satisfying.

Haynes, though, would like very much to know exactly why it

happened in the case of Jimmy and Jane and nobody else. There must have been some specific reason, but there's absolutely no clue to it.

It began about three months after Jane was killed in that freak accident. Jimmy had taken her death hard. This night seemed no different from any other. He came home just as usual and his throat tightened a little, just as usual, as he went up to the door. It was still intolerable to know that Jane wouldn't be waiting for him.

The hurt in his throat was a familiar sensation which he was

Illustrated by PHIL BARD

doggedly hoping would go away. But it was extra strong tonight and he wondered rather desperately if he'd sleep, or, if he did, whether he would dream. Sometimes he had dreams of Jane and was happy until he woke up, and then he wanted to cut his throat. But he wasn't at that point tonight. Not yet.

As he explained it to Haynes later, he simply put his key in the door and opened it and started to walk in. But he kicked the door instead, so he absently put his key in the door and opened it and started to walk in—

Yes, that is what happened. He was half-way through before he realized. He stared blankly. The door looked perfectly normal. He closed it behind him, feeling queer. He tried to reason out what had happened.

Then he felt a slight draught. The door wasn't shut. It was wide open. He had to close it again.

That was all that happened to mark this night off from any other, and there is no explanation why it happened—began, rather—this night instead of another. Jimmy went to bed with a taut feeling. He'd had the conviction that he opened the door twice. The same door. Then he'd had the conviction that he had had to close it twice. He'd heard of that feeling. Queer, but no doubt commonplace.

He slept, blessedly without dreams. He woke next morning and found his muscles tense. That was

an acquired habit. Before he opened his eyes, every morning, he reminded himself that Jane wasn't beside him. It was necessary. If he forgot and turned contentedly—to emptiness—the ache of being alive, when Jane wasn't, was unbearable.

THIS morning he lay with his eyes closed to remind himself, and instead found himself thinking about that business of the door. He'd kicked the door between the two openings, so it wasn't only an illusion of repetition. He was puzzling over that repetition after closing the door, when he found he had to close it again. That proved to him it wasn't a standard mental vagary. It looked like a delusion. But his memory insisted that it had happened that way, whether it was possible or not.

Frowning, he went out and got his breakfast at a restaurant and rode to work. Work was blessed, because he had to think about it. The main trouble was that sometimes something turned up which Jane would have been amused to hear, and he had to remind himself that there was no use making a mental note to tell her. Jane was dead.

Today he thought a good deal about the door, but when he went home he knew that he was going to have a black night. He wouldn't sleep, and oblivion would seem infinitely tempting, because the ache of being alive, when Jane wasn't,

was horribly tedious and he could not imagine an end to it. Tonight would be a very bad one, indeed.

He opened the door and started in. He went crashing into the door. He stood still for an instant, and then fumbled for the lock. But the door was open. He'd opened it. There hadn't been anything for him to run into. Yet his forehead hurt where he'd bumped into the door which wasn't closed at all.

There was nothing he could do about it, though. He went in. He hung up his coat. He sat down wearily. He filled his pipe and grimly faced a night that was going to be one of the worst. He struck a match and lighted his pipe, and put the match in an ashtray. And he glanced in the tray. There were the stubs of cigarettes in it. Jane's brand. Freshly smoked.

He touched them with his fingers. They were real. Then a furious anger filled him. Maybe the cleaning woman had had the intolerable insolence to smoke Jane's cigarettes. He got up and stormed through the house, raging as he searched for signs of further impertinence. He found none. He came back, seething, to his chair. The ashtray was empty. And there'd been nobody around to empty it.

It was logical to question his own sanity, and the question gave him a sort of grim cheer. The matter of the recurrent oddities could be used to fight the abysmal depression ahead. He tried to reason them out,

and always they added up to delusions only.

But he kept his mind resolutely on the problem. Work, during the day, was a godsend. Sometimes he was able to thrust aside for whole half-hours the fact that Jane was dead. Now he grappled relievedly with the question of his sanity or lunacy. He went to the desk where Jane had kept her household accounts. He'd set the whole thing down on paper and examine it methodically, checking this item against that.

JANE'S diary lay on the desk-blotter, with a pencil between two of its pages. He picked it up with a tug of dread. Some day he might read it—an absurd chronicle Jane had never offered him—but not now. Not now!

That was when he realized that it shouldn't be here. His hands jumped, and it fell open. He saw Jane's angular writing and it hurt. He closed it quickly, aching all over. But the printed date at the top of the page registered on his brain even as he snapped the cover shut.

He sat still for minutes, every muscle taut.

It was a long time before he opened the book again, and by that time he had a perfectly reasonable explanation. It must be that Jane hadn't restricted herself to assigned spaces. When she had something extra to write, she wrote it

on past the page allotted for a given date.

Of course!

Jimmy fumbled back to the last written page, where the pencil had been, with a tense matter-of-factness. It was, as he'd noticed, today's date. The page was filled. The writing was fresh. It was Jane's handwriting.

"Went to the cemetery," said the sprawling letters. *"It was very bad. Three months since the accident and it doesn't get any easier. I'm developing a personal enmity to chance. It doesn't seem like an abstraction any more. It was chance that killed Jimmy. It could have been me instead, or neither of us. I wish—"*

Jimmy went quietly mad for a moment or two. When he came to himself he was staring at an empty desk-blotter. There wasn't any book before him. There wasn't any pencil between his fingers. He remembered picking up the pencil and writing desperately under Jane's entry. *"Jane!"* he'd written—and he could remember the look of his scrawled script under Jane's—"where are you? I'm not dead! I thought you were! In God's name, where are you?"

But certainly nothing of the sort could have happened. It was delusion.

That night was particularly bad, but curiously not as bad as some other nights had been. Jimmy had a normal man's horror of insanity,

yet this wasn't, so to speak, normal insanity. A lunatic has always an explanation for his delusions. Jimmy had none. He noted the fact.

Next morning he bought a small camera with a flash-bulb attachment and carefully memorized the directions for its use. This was the thing that would tell the story. And that night, when he got home, as usual after dark, he had the camera ready. He unlocked the door and opened it. He put his hand out tentatively. The door was still closed.

He stepped back and quickly snapped the camera. There was a sharp flash of the bulb. The glare blinded him. But when he put out his hand again, the door was open. He stepped into the living-room without having to unlock and open it a second time.

HE LOOKED at the desk as he turned the film and put in a new flash-bulb. It was as empty as he'd left it in the morning. He hung up his coat and settled down tensely with his pipe. Presently he knocked out the ashes. There were cigaret butts in the tray.

He quivered a little. He smoked again, carefully not looking at the desk. It was not until he knocked out the second pipeful of ashes that he let himself look where Jane's diary had been.

It was there again. The book was open. There was a ruler laid across it to keep it open.

Jimmy wasn't frightened, and he wasn't hopeful. There was absolutely no reason why this should happen to him. He was simply desperate and grim when he went across the room. He saw yesterday's entry, and his own hysterical message. And there was more writing beyond that.

In Jane's hand.

"Darling, maybe I'm going crazy. But I think you wrote me as if you were alive. Maybe I'm crazy to answer you. But please, darling, if you are alive somewhere and somehow—"

There was a tear-blot here. The rest was frightened, and tender, and as desperate as Jimmy's own sensations.

He wrote, with trembling fingers, before he put the camera into position and pressed the shutter-control for the second time.

When his eyes recovered from the flash, there was nothing on the desk.

He did not sleep at all that night, nor did he work the next day. He went to a photographer with the film and paid an extravagant fee to have the film developed and enlarged at once. He got back two prints, quite distinct. Even very clear, considering everything. One looked like a trick shot, showing a door twice, once open and once closed, in the same photograph. The other was a picture of an open book and he could read every word on its pages. It was inconceivable

that such a picture should have come out.

He walked around practically at random for a couple of hours, looking at the pictures from time to time. Pictures or no pictures, the thing was nonsense. The facts were preposterous. It must be that he only imagined seeing these prints. But there was a quick way to find out.

He went to Haynes. Haynes was his friend and reluctantly a lawyer—reluctantly because law practice interfered with a large number of unlikely hobbies.

"Haynes," said Jimmy quietly, "I want you to look at a couple of pictures and see if you see what I do. I may have gone out of my head."

HE PASSED over the picture of the door. It looked to Jimmy like two doors, nearly at right angles, in the same door-frame and hung from the same hinges.

Haynes looked at it and said tolerantly, "Didn't know you went in for trick photography." He picked up a reading glass and examined it in detail. "A futile but highly competent job. You covered half the film and exposed with the door closed, and then exposed for the other half of the film with the door open. A neat job of matching, though. You've a good tripod."

"I held the camera in my hand," said Jimmy, with restraint.

"You couldn't do it that way,

Jimmy," objected Haynes. "Don't try to kid me."

"I'm trying not to fool myself," said Jimmy. He was very pale. He handed over the other enlargement. "What do you see in this?"

Haynes looked. Then he jumped. He read through what was so plainly photographed on the pages of a diary that hadn't been before the camera. Then he looked at Jimmy in palpable uneasiness.

"Got any explanation?" asked Jimmy. He swallowed. "I—haven't any."

He told what had happened to date, baldly and without any attempt to make it reasonable. Haynes gaped at him. But before long the lawyer's eyes grew shrewd and compassionate. As noted hitherto, he had a number of unlikely hobbies, among which was a loud insistence on a belief in a fourth dimension and other esoteric ideas, because it was good fun to talk authoritatively about them. But he had common sense, had Haynes, and a good and varied law practice.

Presently he said gently, "If you want it straight, Jimmy . . . I had a client once. She accused a chap of beating her up. It was very pathetic. She was absolutely sincere. She really believed it. But her own family admitted that she'd made the marks on herself—and the doctors agreed that she'd unconsciously blotted it out of her mind afterward."

"You suggest," said Jimmy composedly, "that I might have forged all that to comfort myself with, as soon as I could forget the forging. I don't think that's the case, Haynes. What possibilities does that leave?"

Haynes hesitated a long time. He looked at the pictures again, scrutinizing especially the one that looked like a trick shot.

"This is an amazingly good job of matching," he said wrily. "I can't pick the place where the two exposures join. Some people might manage to swallow this, and the theoretic explanation is a lot better. The only trouble is that it couldn't happen."

Jimmy waited.

HAYNES went on awkwardly, "The accident in which Jane was killed. You were in your car. You came up behind a truck carrying structural steel. There was a long slim girder sticking way out behind, with a red rag on it. The truck had airbrakes. The driver jammed them on just after he'd passed over a bit of wet pavement. The truck stopped. Your car slid, even with the brakes locked.—It's nonsense, Jimmy!"

"I'd rather you continued," said Jimmy, white.

"You—ran into the truck, your car swinging a little as it slid. The girder came through the windshield. It could have hit you. It could have missed both of you. By

pure chance, it happened to hit Jane."

"And killed her," said Jimmy very quietly. "Yes. But it might have been me. That diary entry is written as if it had been me. Did you notice?"

There was a long pause in Haynes' office. The world outside the windows was highly prosaic and commonplace and normal. Haynes wriggled in his chair.

"I think," he said unhappily, "you did the same as my girl client—forged that writing and then forgot it. Have you seen a doctor yet?"

"I will," said Jimmy. "Systematize my lunacy for me first, Haynes. If it can be done."

"It's not accepted science," said Haynes. "In fact, it's considered eyewash. But there have been speculations . . ." He grimaced. "First point is that it was pure chance that Jane was hit. It was just as likely to be you instead, or neither of you. If it had been you—"

"Jane," said Jimmy, "would be living in our house alone, and she might very well have written that entry in the diary."

"Yes," agreed Haynes uncomfortably. "I shouldn't suggest this, but—there are a lot of possible futures. We don't know which one will come about for us. Nobody except fatalists can argue with that statement. When today was in the future, there were a lot of possible todays. The present mornent—now—is only one of any number of

nows that might have been. So it's been suggested—mind you, this isn't accepted science, but pure charlatany—it's been suggested that there may be more than one actual now. Before the girder actually hit, there were three nows in the possible future. One in which neither of you was hit, one in which you were hit, and one—"

He paused, embarrassed. "So some people would say, how do we know that the one in which Jane was hit is the only now? They'd say that the others could have happened and that maybe they did."

JIMMY nodded.

"If that were true," he said detachedly, "Jane would be in a present moment, a now, where it was me who was killed. As I'm in a now where she was killed. Is that it?"

Haynes shrugged.

Jimmy thought, and said gravely, "Thanks. Queer, isn't it?"

He picked up the two pictures and went out.

Haynes was the only one who knew about the affair, and he worried. But it is not easy to denounce someone as insane, when there is no evidence that he is apt to be dangerous. He did go to the trouble to find out that Jimmy acted in a reasonably normal manner, working industriously and talking quite sanely in the daytime. Only Haynes suspected that of nights he went home and experienced the impossi-

ble. Sometimes, Haynes suspected that the impossible might be the fact—that had been an amazingly good bit of trick photography—but it was too preposterous! Also, there was no reason for such a thing to happen to Jimmy.

FOR a week after Haynes' pseudo-scientific explanation, however, Jimmy was almost light-hearted. He no longer had to remind himself that Jane was dead. He had evidence that she wasn't. She wrote to him in the diary which he found on her desk, and he read her messages and wrote in return. For a full week the sheer joy of simply being able to communicate with each other was enough.

The second week was not so good. To know that Jane was alive was good, but to be separated from her without hope was not. There was no meaning in a cosmos in which one could only write love-letters to one's wife or husband in another now which only might have been. But for a while both Jimmy and Jane tried to hide this new hopelessness from each other.

Jimmy explained this carefully to Haynes before it was all over. Their letters were tender and very natural, and presently there was even time for gossip and actual bits of choice scandal . . .

Haynes met Jimmy on the street one day, after about two weeks. Jimmy looked better, but he was drawn very fine. Though he greeted

Haynes without constraint, Haynes felt awkward. After a little he said, "Er—Jimmy. That matter we were talking about the other day—Those photographs—"

"Yes. You were right," said Jimmy casually. "Jane agrees. There is more than one now. In the now I'm in, Jane was killed. In the now she's in, I was killed."

Haynes fidgeted. "Would you let me see that picture of the door again?" he asked. "A trick film like that simply can't be perfect! I'd like to enlarge that picture a little more. May I?"

"You can have the film," said Jimmy. "I don't need it any more."

Haynes hesitated. Jimmy, quite matter-of-factly, told him most of what had happened to date. But he had no idea what had started it. Haynes almost wrung his hands.

"The thing can't be!" he said desperately. "You *have* to be crazy, Jimmy!"

But he would not have said that to a man whose sanity he really suspected.

Jimmy nodded. "Jane told me something, by the way. Did you have a near-accident night before last? Somebody almost ran into you out on the Saw Mill Road?"

Haynes started and went pale. "I went around a curve and a car plunged out of nowhere on the wrong side of the road. We both swung hard. He smashed my fender and almost went off the road himself. But he went racing off with-

out stopping to see if I'd gone in the ditch and killed myself. If I'd been five feet nearer the curve when he came out of it—"

"Where Jane is," said Jimmy, "you were. Just about five feet nearer the curve. It was a bad smash. Tony Shields was in the other car. It killed him—where Jane is."

Haynes licked his lips. It was absurd, but he said, "How about me?"

"Where Jane is," Jimmy told him, "you're in the hospital."

Haynes swore in unreasonable irritation. There wasn't any way for Jimmy to know about that near-accident. He hadn't mentioned it, because he'd no idea who'd been in the other car.

"I don't believe it!" But he said pleadingly, "Jimmy, it isn't so, is it? How in hell could you account for it?"

Jimmy shrugged. "Jane and I—we're rather fond of each other." The understatement was so patent that he smiled faintly. "Chance separated us. The feeling we have for each other draws us together. There's a saying about two people becoming one flesh. If such a thing could happen, it would be Jane and me. After all, maybe only a tiny pebble or a single extra drop of water made my car swerve enough to get her killed—where I am, that is. That's a very little thing. So with such a trifle separating us, and so much pulling us together—why,

sometimes the barrier wears thin. She leaves a door closed in the house where she is. I open that same door where I am. Sometimes I have to open the door she left closed, too. That's all."

HAYNES didn't say a word, but the question he wouldn't ask was so self-evident that Jimmy answered it.

"We're hoping," he said. "It's pretty bad being separated, but the —phenomena keep up. So we hope. Her diary is sometimes in the now where she is, and sometimes in this now of mine. Cigaret butts, too. Maybe—" That was the only time he showed any sign of emotion. He spoke as if his mouth were dry. "If ever I'm in her now or she's in mine, even for an instant, all the devils in hell couldn't separate us again! —We hope."

Which was insanity. In fact, it was the third week of insanity. He'd told Haynes quite calmly that Jane's diary was on her desk every night, and there was a letter to him in it, and he wrote one to her. He said quite calmly that the barrier between them seemed to be growing thinner. That at least once, when he went to bed, he was sure that there was one more cigaret stub in the ashtray than had been there earlier in the evening.

They were very near indeed. They were separated only by the difference between what was and what might have been. In one sense the

difference was a pebble or a drop of water. In another, the difference was that between life and death. But they hoped. They convinced themselves that the barrier grew thinner. Once, it seemed to Jimmy that they touched hands. But he was not sure. He was still sane enough not to be sure. And he told all this to Haynes in a matter-of-fact fashion, and speculated mildly on what had started it all . . .

Then, one night, Haynes called Jimmy on the telephone. Jimmy answered.

He sounded impatient.

"Jimmy!" said Haynes. He was almost hysterical. "I think I'm insane! You know you said Tony Shields was in the car that hit me?"

"Yes," said Jimmy politely. "What's the matter?"

"It's been driving me crazy," wailed Haynes feverishly. "You said he was killed—there. But I hadn't told a soul about the incident. So—so just now I broke down and phoned him. And it *was* Tony Shields! That near-crash scared him to death, and I gave him hell and—he's paying for my fender! I didn't tell him he was killed."

Jimmy didn't answer. It didn't seem to matter to him.

"I'm coming over!" said Haynes feverishly. "I've got to talk!"

"No," said Jimmy. "Jane and I are pretty close to each other. We've touched each other again. We're hoping. The barrier's wearing

through. We hope it's going to break."

"But it can't!" protested Haynes, shocked at the idea of improbabilities in the preposterous. "It—it can't! What'd happen if you turned up where she is, or—or if she turned up here?"

"I don't know," said Jimmy, "but we'd be together."

"You're crazy! You mustn't—"

"Goodbye," said Jimmy politely. "I'm hoping, Haynes. Something has to happen. It has to!"

His voice stopped. There was a noise in the room behind him; Haynes heard it. Only two words, and those faintly, and over a telephone, but he swore to himself that it was Jane's voice, throbbing with happiness. The two words Haynes thought he heard were, "Jimmy! Darling!"

Then the telephone crashed to the floor and Haynes heard no more. Even though he called back frantically again, Jimmy didn't answer.

HAYNES sat up all that night, practically gibbering, and he tried to call Jimmy again next morning, and then tried his office, and at last went to the police. He explained to them that Jimmy had been in a highly nervous state since the death of his wife.

So finally the police broke into the house. They had to break in because every door and window was carefully fastened from the inside,

as if Jimmy had been very careful to make sure nobody could interrupt what he and Jane hoped would occur. But Jimmy wasn't in the house. There was no trace of him. It was exactly as if he had vanished into the air.

Ultimately the police dragged ponds and such things for his body, but they never found any clues. Nobody ever saw Jimmy again. It was recorded that Jimmy simply left town, and everybody accepted that obvious explanation.

THE thing that really bothered Haynes was the fact that Jimmy had told him who'd almost crashed into him on the Saw Mill Road, and it was true. That was, to underestimate, hard to take. And there was the double-exposure picture of Jimmy's front door, which was much more convincing than any other trick picture Haynes had ever seen. But on the other hand, if it did happen, why did it happen only to Jimmy and Jane? What set it off? What started it? Why, in effect, did those oddities start at that particular time, to those particular people, in that particular fashion? In fact, did anything happen at all?

Now, after Jimmy's disappearance, Haynes wished he could talk with him once more—talk sensibly,

quietly, without fear and hysteria and this naggingly demanding wonderment.

For he had sketched to Jimmy, and Jimmy had accepted (hadn't he?) the possibility of the *other now*—but with that acceptance came still others. In one, Jane was dead. In one, Jimmy was dead. It was between these two that the barrier had grown so thin . . .

If he could talk to Jimmy about it!

There was also a now in which *both* had died, and another in which *neither* had died! And if it was togetherness that each wanted so desperately . . . *which was it?*

These were things that Haynes would have liked very much to know, but he kept his mouth shut, or calm men in white coats would have come and taken him away for treatment. As they would have taken Jimmy.

The only thing really sure was that it was all impossible. But to someone who liked Jimmy and Jane—and doubtless to Jimmy and to Jane themselves—no matter which barrier had been broken, it was a rather satisfying impossibility.

Haynes' car had been repaired. He could easily have driven out to the cemetery. For some reason, he never did.

—MURRAY LEINSTER



Good Night,





Illustrated by DON SIBLEY

Mr. James

By CLIFFORD D. SIMAK

Surprise endings in science fiction are not easy to attain successfully. This story has four internal plot surprises!

HE CAME alive from nothing. He became aware from unawareness.

He smelled the air of the night and heard the trees whispering on the embankment above him and the breeze that had set the trees to

whispering came down to him and felt him over with soft and tender fingers, for all the world as if it were examining him for broken bones or contusions and abrasions.

He sat up and put both his palms down upon the ground be-

side him to help him sit erect and stared into the darkness. Memory came slowly and when it came it was incomplete and answered nothing.

His name was Henderson James and he was a human being and he was sitting somewhere on a planet that was called the Earth. He was thirty-six years old and he was, in his own way, famous, and comfortably well-off. He lived in an old ancestral home on Summit avenue, which was a respectable address even if it had lost some of its smartness in the last twenty years or so.

On the road above the slope of the embankment a car went past with its tires whining on the pavement and for a moment its headlights made the treetops glow. Far away, muted by the distance, a whistle cried out. And somewhere else a dog was barking with a flat viciousness.

His name was Henderson James and if that were true, why was he here? Why should Henderson James be sitting on the slope of an embankment, listening to the wind in the trees and to a wailing whistle and a barking dog? Something had gone wrong, some incident that, if he could but remember it, might answer all his questions.

There was a job to do.

He sat and stared into the night and found that he was shivering, although there was no reason why he should, for the night was not

that cold. Beyond the embankment he heard the sounds of a city late at night, the distant whine of the speeding car and the far-off wind-broken screaming of a siren. Once a man walked along a street close by and James sat listening to his footsteps until they faded out of hearing.

Something had happened and there was a job to do, a job that he had been doing, a job that somehow had been strangely interrupted by the inexplicable incident which had left him lying here on this embankment.

He checked himself. Clothing . . . shorts and shirt, strong shoes, his wristwatch and the gun in the holster at his side.

A gun?

The job involved a gun.

He had been hunting in the city, hunting something that required a gun. Something that was prowling in the night and a thing that must be killed.

THEN he knew the answer, but even as he knew it he sat for a moment wondering at the strange, methodical, step-by-step progression of reasoning that had brought him to the memory. First his name and the basic facts pertaining to himself, then the realization of where he was and the problem of why he happened to be there and finally the realization that he had a gun and that it was meant to be used. It was a logical way to

think, a primer schoolbook way to work it out:

I am a man named Henderson James.

I live in a house on Summit avenue.

Am I in the house on Summit avenue?

No, I am not in the house on Summit avenue.

I am on an embankment somewhere.

Why am I on the embankment?

But it wasn't the way a man thought, at least not the normal way a normal man would think. Man thought in shortcuts. He cut across the block and did not go all the way around.

It was a frightening thing, he told himself, this clear-around-the-block thinking. It wasn't normal and it wasn't right and it made no sense at all . . . no more sense than did the fact that he should find himself in a place with no memory of getting there.

HE ROSE to his feet and ran his hands up and down his body. His clothes were neat, not rumpled. He hadn't been beaten up and he hadn't been thrown from a speeding car. There were no sore places on his body and his face was unbloody and whole and he felt all right.

He hooked his fingers in the holster belt and shucked it up so that it rode tightly on his hips. He pulled out the gun and checked it

with expert and familiar fingers and the gun was ready.

He walked up the embankment and reached the road, went across it with a swinging stride to reach the sidewalk that fronted the row of new bungalows. He heard a car coming and stepped off the sidewalk to crouch in a clump of evergreens that landscaped one corner of a lawn. The move was instinctive and he crouched there, feeling just a little foolish at the thing he'd done.

The car went past and no one saw him. They would not, he now realized, have noticed him even if he had remained out on the sidewalk.

He was unsure of himself; that must be the reason for his fear. There was a blank spot in his life, some mysterious incident that he did not know and the unknowing of it had undermined the sure and solid foundation of his own existence, had wrecked the basis of his motive and had turned him, momentarily, into a furtive animal that darted and hid at the approach of his fellow men.

That and something that had happened to him that made him think clear around the block.

He remained crouching in the evergreens, watching the street and the stretch of sidewalk, conscious of the white-painted, ghostly bungalows squatting back in their landscaped lots.

A word came into his mind.

Pnudly. An odd word, unearthly, yet it held terror.

The *pnudly* had escaped and that was why he was here, hiding on the front lawn of some unsuspecting and sleeping citizen, equipped with a gun and a determination to use it, ready to match his wits and the quickness of brain and muscle against the most bloodthirsty, hate-filled thing yet found in the Galaxy.

The *pnudly* was dangerous. It was not a thing to harbor. In fact, there was a law against harboring not only a *pnudly*, but certain other alien beasties even less lethal than a *pnudly*. There was good reason for such a law, reason which no one, much less himself, would ever think to question.

And now the *pnudly* was loose and somewhere in the city.

JAMES grew cold at the thought of it, his brain forming images of the things that might come to pass if he did not hunt down the alien beast and put an end to it.

Although beast was not quite the word to use. The *pnudly* was more than a beast . . . just how much more than a beast he once had hoped to learn. He had not learned a lot, he now admitted to himself, not nearly all there was to learn, but he had learned enough. More than enough to frighten him.

For one thing, he had learned what hate could be and how shallow an emotion human hate turned

out when measured against the depth and intensity and the ravening horror of the *pnudly's* hate. Not unreasoning hate, for unreasoning hate defeats itself, but a rational, calculating, driving hate that motivated a clever and deadly killing machine which directed its rapacity and its cunning against every living thing that was not a *pnudly*.

For the beast had a mind and a personality that operated upon the basic law of self-preservation against all comers, whoever they might be, extending that law to the interpretation that safety lay in one direction only . . . the death of every other living being. No other reason was needed for a *pnudly's* killing. The fact that anything else lived and moved and was thus posing a threat, no matter how remote, against a *pnudly*, was sufficient reason in itself.

It was psychotic, of course, some murderous instinct planted far back in time and deep in the creature's racial consciousness, but no more psychotic, perhaps, than many human instincts.

The *pnudly* had been, and still was for that matter, a unique opportunity for a study in alien behaviorism. Given a permit, one could have studied them on their native planet. Refused a permit, one sometimes did a foolish thing, as James had.

And foolish acts backfire, as this one did.

James put down a hand and patted the gun at his side, as if by doing so he might derive some assurance that he was equal to the task. There was no question in his mind as to the thing that must be done. He must find the *pundly* and kill it and he must do that before the break of dawn. Anything less than that would be abject and horrifying failure.

For the *pundly* would bud. It was long past its time for the reproductive act and there were bare hours left to find it before it had loosed upon the Earth dozens of baby *pundlies*. They would not remain babies for long. A few hours after budding they would strike out on their own. To find one *pundly*, lost in the vastness of a sleeping city, seemed bad enough; to track down some dozens of them would be impossible.

So it was tonight or never.

Tonight there would be no killing on the *pundly's* part. Tonight the beast would be intent on one thing only, to find a place where it could rest in quiet, where it could give itself over, wholeheartedly and with no interference, to the business of bringing other *pundlies* into being.

It was clever. It would have known where it was going before it had escaped. There would be, on its part, no time wasted in seeking or in doubling back. It would have known where it was going and already it was there, already

the buds would be rising on its body, bursting forth and growing.

There was one place, and one place only, in the entire city where an alien beast would be safe from prying eyes. A man could figure that one out and so could a *pundly*. The question was: Would the *pundly* know that a man could figure it out? Would the *pundly* underestimate a man? Or, knowing that the man would know it, too, would it find another place of hiding?

James rose from the evergreens and went down the sidewalk. The street marker at the corner, standing underneath a swinging street light, told him where he was and it was closer to the place where he was going than he might have hoped.

II

THE zoo was quiet for a while, and then something sent up a howl that raised James' hackles and made his blood stop in his veins.

James, having scaled the fence, stood tensely at its foot, trying to identify the howling animal. He was unable to place it. More than likely, he told himself, it was a new one. A person simply couldn't keep track of all the zoo's occupants. New ones were coming in all the time, strange, unheard of creatures from the distant stars.

Straight ahead lay the unoccupied moat cage that up until a day

or two before had held an unbelievable monstrosity from the jungles of one of the Arctian worlds. James grimaced in the dark, remembering the thing. They had finally had to kill it.

And now the *pundly* was there . . . well, maybe not there, but one place that it could be, the one place in the entire city where it might be seen and arouse no comment, for the zoo was filled with animals that were seldom seen and another strange one would arouse only momentary wonder. One animal more would go unnoticed unless some zoo attendant should think to check the records.

There, in that unoccupied cage area, the *pundly* would be undisturbed, could quietly go about its business of budding out more *pundlies*. No one would bother it, for things like *pundlies* were the normal occupants of this place set aside for the strangers brought to Earth to be stared at and studied by that ferocious race, the humans.

James stood quietly beside the fence.

Henderson James. Thirty-six. Unmarried. Alien psychologist. An official of this zoo. And an offender

against the law for having secured and harbored an alien being that was barred from Earth.

Why, he asked himself, did he think of himself in this way? Why, standing here, did he catalogue himself? It was instinctive to know one's self . . . there was no need, no sense of setting up a mental outline of one's self.

It had been foolish to go ahead with this *pundly* business. He recalled how he had spent days fighting it out with himself, reviewing all the disastrous possibilities which might arise from it. If the old renegade spaceman had not come to him and had not said, over a bottle of most delicious Lupan wine, that he could deliver, for a certain, rather staggering sum, one live *pundly*, in good condition, it never would have happened.

JAMES was sure that of himself he never would have thought of it. But the old space captain was a man he knew and admired from former dealings. He was a man who was not averse to turning either an honest or a dishonest dollar, and yet he was a man, for all of that, that you could depend upon. He

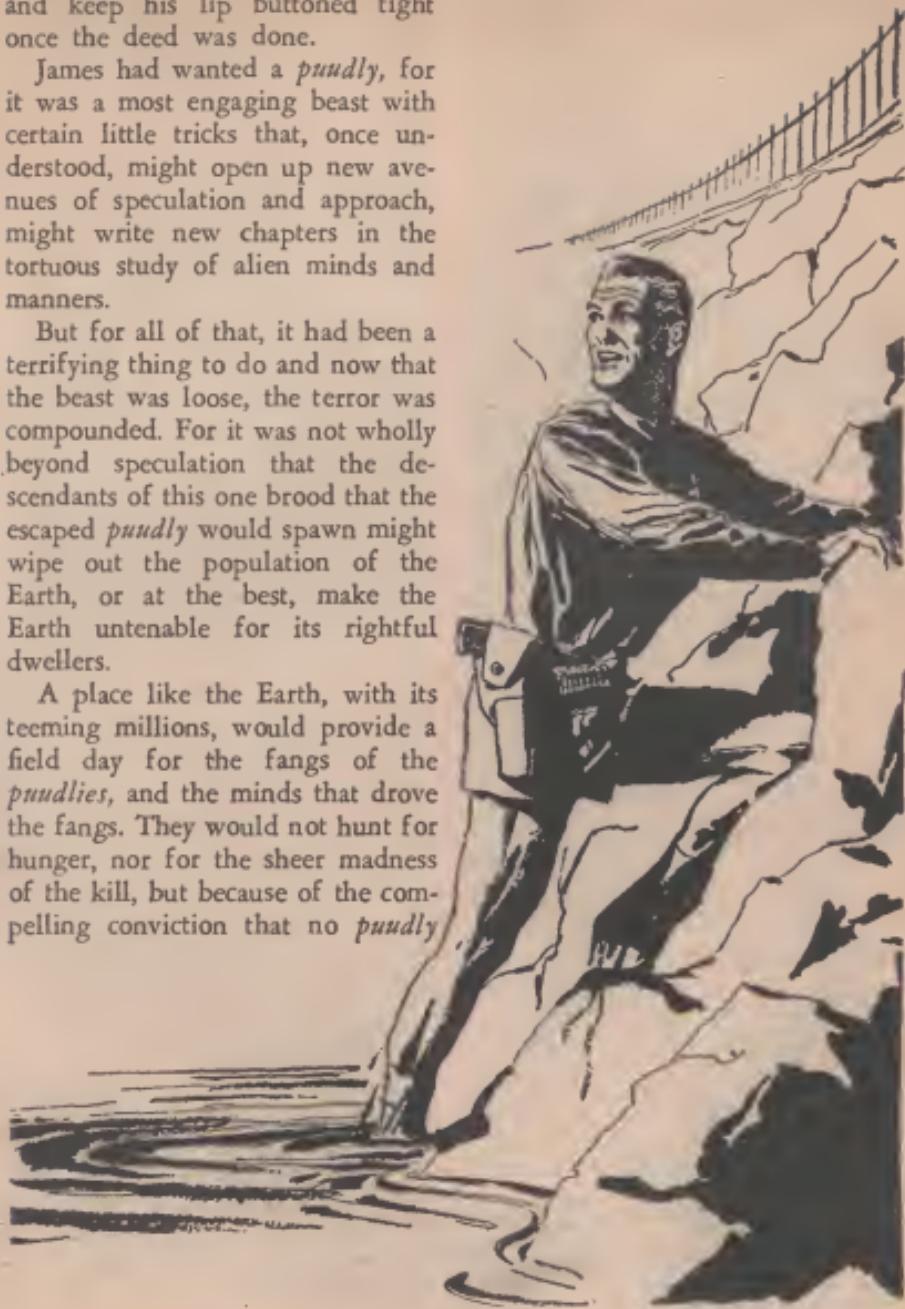


would do what you paid him for and keep his lip buttoned tight once the deed was done.

James had wanted a *pnudly*, for it was a most engaging beast with certain little tricks that, once understood, might open up new avenues of speculation and approach, might write new chapters in the tortuous study of alien minds and manners.

But for all of that, it had been a terrifying thing to do and now that the beast was loose, the terror was compounded. For it was not wholly beyond speculation that the descendants of this one brood that the escaped *pnudly* would spawn might wipe out the population of the Earth, or at the best, make the Earth untenable for its rightful dwellers.

A place like the Earth, with its teeming millions, would provide a field day for the fangs of the *pnudlies*, and the minds that drove the fangs. They would not hunt for hunger, nor for the sheer madness of the kill, but because of the compelling conviction that no *pnudly*



would be safe until Earth was wiped clean of life. They would be killing for survival, as a cornered rat would kill . . . except that they would be cornered nowhere but in the murderous insecurity of their minds.

If the posses scoured the Earth to hunt them down, they would be found in all directions, for they would be shrewd enough to scatter. They would know the ways of guns and traps and poisons and there would be more and more of them as time went on. Each of them would accelerating their budding to replace with a dozen or a hundred the ones that might be killed.

James moved quietly forward to the edge of the moat and let himself down into the mud that covered the bottom. When the monstrosity had been killed, the moat had been drained and should long since have been cleaned, but the press of work, James thought, must have prevented its getting done.

Slowly he waded out into the mud, feeling his way, his feet making sucking noises as he pulled them through the slime. Finally he reached the rocky incline that led out of the moat to the island cage.

He stood for a moment, his hands on the great, wet boulders, listening, trying to hold his breath so the sound of it would not interfere with hearing. The thing that howled had quieted and the night was deathly quiet. Or seemed, at first, to be. Then he heard the little

insect noises that ran through the grass and bushes and the whisper of the leaves in the trees across the moat and the far-off sound that was the hoarse breathing of a sleeping city.

NOW, for the first time, he felt fear. Felt it in the silence that was not a silence, in the mud beneath his feet, in the upthrust boulders that rose out of the moat.

The *puudly* was a dangerous thing, not only because it was strong and quick, but because it was intelligent. Just how intelligent, he did not know. It reasoned and it planned and schemed. It could talk, though not as a human talks . . . probably better than a human ever could. For it not only could talk words, but it could talk emotions. It lured its victims to it by the thoughts it put into their minds; it held them entranced with dreams and illusion until it slit their throats. It could purr a man to sleep, could lull him to suicidal inaction. It could drive him crazy with a single flicking thought, hurling a perception so foul and alien that the mind recoiled deep inside itself and stayed there, coiled tight, like a watch that has been overwound and will not run.

It should have budded long ago, but it had fought off its budding, holding back against the day when it might escape, planning, he realized now, its fight to stay on Earth, which meant its conquest of Earth.

It had planned, and planned well, against this very moment, and it would feel or show no mercy to anyone who interfered with it.

His hand went down and touched the gun and he felt the muscles in his jaw involuntarily tightening and suddenly there was at once a lightness and a hardness in him that had not been there before. He pulled himself up the boulder face, seeking cautious hand- and toeholds, breathing shallowly, body pressed against the rock. Quickly, and surely, and no noise, for he must reach the top and be there before the *pnudly* knew there was anyone around.

The *pnudly* would be relaxed and intent upon its business, engrossed in the budding forth of that numerous family that in days to come would begin the grim and relentless crusade to make an alien planet safe for *pnudlies* . . . and for *pnudlies* alone.

That is, if the *pnudly* were here and not somewhere else. James was only a human trying to think like a *pnudly* and that was not an easy or a pleasant job and he had no way of knowing if he succeeded. He could only hope that his reasoning was vicious and crafty enough.

His clawing hand found grass and earth and he sank his fingers deep into the soil, hauling his body up the last few feet of the rock face above the pit.

He lay flat upon the gently sloping ground, listening, tensed for

any danger. He studied the ground in front of him, probing every foot. Distant street lamps lighting the zoo walks threw back the total blackness that had engulfed him as he climbed out of the moat, but there still were areas of shadow that he had to study closely.

INCH by inch, he squirmed his way along, making sure of the terrain immediately ahead before he moved a muscle. He held the gun in a rock-hard fist, ready for instant action, watching for the faintest hint of motion, alert for any hump or irregularity that was not rock or bush or grass.

Minutes magnified themselves into hours, his eyes ached with staring and the lightness that had been in him drained away, leaving only the hardness, which was as tense as a drawn bowstring. A sense of failure began to seep into his mind and with it came the full-fledged, until now unadmitted, realization of what failure meant, not only for the world, but for the dignity and the pride that was Henderson James.

Now, faced with the possibility, he admitted to himself the action he must take if the *pnudly* were not here, if he did not find it here and kill it. He would have to notify the authorities, would have to attempt to alert the police, must plead with newspapers and radio to warn the citizenry, must reveal himself as a man who, through pride and self-

conceit, had exposed the people of the Earth to this threat against their hold upon their native planet.

They would not believe him. They would laugh at him until the laughter died in their torn throats, choked off with their blood. He sweated, thinking of it, thinking of the price this city, and the world, would pay before it learned the truth.

There was a whisper of sound, a movement of black against deeper black.

The *pundly* rose in front of him, not more than six feet away, from its bed beside a bush. He jerked the pistol up and his finger tightened on the trigger.

"Don't," the *pundly* said inside his mind. "I'll go along with you."

His finger strained with the careful slowness of the squeeze and the gun leaped in his hand, but even as it did he felt the whiplash of terror slash at his brain, caught for just a second the terrible import, the mind-shattering obscenity that glanced off his mind and ricocheted away.

"Too late," he told the *pundly*, with his voice and his mind and his body shaking. "You should have tried that first. You wasted precious seconds. You would have got me if you had done it first."

It had been easy, he assured himself, much easier than he had thought. The *pundly* was dead or dying and the Earth and its millions of unsuspecting citizens were

safe and, best of all, Henderson James was safe . . . safe from indignity, safe from being stripped naked of the little defenses he had built up through the years to shield him against the public stare. He felt relief flood over him and it left him pulseless and breathless and feeling clean, but weak.

"You fool," the dying *pundly* said, death clouding its words as they built up in his mind. "You fool, you half-thing, you duplicate . . ."

It died then and he felt it die, felt the life go out of it and leave it empty.

HE ROSE softly to his feet and he seemed stunned and at first he thought it was from knowing death, from having touched hands with death within the *pundly's* mind.

The *pundly* had tried to fool him. Faced with the pistol, it had tried to throw him off his balance to give it the second that it needed to hurl the mind-blasting thought that had caught at the edge of his brain. If he had hesitated for a moment, he knew, it would have been all over with him. If his finger had slackened for a moment, it would have been too late.

The *pundly* must have known that he would think of the zoo as the first logical place to look and, even knowing that, it had held him in enough contempt to come here, had not even bothered to try to

watch for him, had not tried to stalk him, had waited until he was almost on top of it before it moved.

And that was queer, for the *pundly* must have known, with its uncanny mental powers, every move that he had made. It must have maintained a casual contact with his mind every second of the time since it had escaped. He had known that and . . . wait a minute, he hadn't known it until this very moment, although, knowing it now, it seemed as if he had always known it.

What is the matter with me, he thought. There's something wrong with me. I should have known I could not surprise the *pundly*, and yet I didn't know it. I must have surprised it, for otherwise it would have finished me off quite leisurely at any moment after I climbed out of the moat.

You fool, the *pundly* had said. You fool, you half-thing, you duplicate . . .

You duplicate!

He felt the strength and the personality and the hard, unquestioned identity of himself as Henderson James, human being, drain out of him, as if someone had cut the puppet string and he, the puppet, had slumped supine upon the stage.

So that was why he had been able to surprise the *pundly*!

There were two Henderson Jameses. The *pundly* had been in contact with one of them, the orig-

inal, the real Henderson James, had known every move he made, had known that it was safe so far as that Henderson James might be concerned. It had not known of the second Henderson James that had stalked it through the night.

Henderson James, duplicate.

Henderson James, temporary.

Henderson James, here tonight, gone tomorrow.

FOR they would not let him live. The original Henderson James would not allow him to continue living, and even if he did, the world would not allow it. Duplicates were made only for very temporary and very special reasons and it was always understood that once their purpose was accomplished they would be done away with.

Done away with . . . those were the words exactly. Gotten out of the way. Swept out of sight and mind. Killed as unconcernedly and emotionlessly as one chops off a chicken's head.

He walked forward and dropped on one knee beside the *pundly*, running his hand over its body in the darkness. Lumps stood out all over it, the swelling buds that now would never break to spew forth in a loathsome birth a brood of *pundly* pups.

He rose to his feet.

The job was done. The *pundly* had been killed—killed before it had given birth to a horde of horrors.

The job was done and he could go home.

Home?

Of course, that was the thing that had been planted in his mind, the thing they wanted him to do. To go home, to go back to the house on Summit avenue, where his executioners would wait, to walk back deliberately and unsuspectingly to the death that waited.

The job was done and his usefulness was over. He had been created to perform a certain task and the task was now performed and while an hour ago he had been a factor in the plans of men, he was no longer wanted. He was an embarrassment and superfluous.

Now wait a minute, he told himself. You may not be a duplicate. You do not feel like one.

That was true. He felt like Henderson James. He was Henderson James. He lived on Summit avenue and had illegally brought to Earth a beast known as a *puudly* in order that he might study it and talk to it and test its alien reactions, attempt to measure its intelligence and guess at the strength and depth and the direction of its non-humanity. He had been a fool, of course, to do it, and yet at the time it had seemed important to understand the deadly, alien mentality.

I am human, he said, and that was right, but even so the fact meant nothing. Of course he was human. Henderson James was human and his duplicate would be ex-

actly as human as the original. For the duplicate, processed from the pattern that held every trait and characteristic of the man he was to become a copy of, would differ in not a single basic factor.

In not a single basic factor, perhaps, but in certain other things. For no matter how much the duplicate might be like his pattern, no matter how full-limbed he might spring from his creation, he still would be a new man. He would have the capacity for knowledge and for thought and in a little time he would have and know and be all the things that his original was . . .

BUT it would take some time, some short while to come to a full realization of all he knew and was, some time to coordinate and recognize all the knowledge and experience that lay within his mind. At first he'd grope and search until he came upon the things that he must know. Until he became acquainted with himself, with the sort of man he was, he could not reach out blindly in the dark and put his hand exactly and unerringly upon the thing he wished.

That had been exactly what he'd done. He had groped and searched. He had been compelled to think, at first, in simple basic truths and facts.

I am a man.

I am on a planet called Earth.

I am Henderson James.

I live on Summit avenue.

There is a job to do.

It had been quite a while, he remembered now, before he had been able to dig out of his mind the nature of the job.

There is a *pundly* to hunt down and destroy.

Even now he could not find in the hidden, still-veiled recesses of his mind the many valid reasons why a man should run so grave a risk to study a thing so vicious as a *pundly*. There were reasons, he knew there were, and in a little time he would know them quite specifically.

The point was that if he were Henderson James, original, he would know them now, know them as a part of himself and his life, without laboriously searching for them.

The *pundly* had known, of course. It had known, beyond any chance of error, that there were two Henderson Jameses. It had been keeping tab on one when another one showed up. A mentality far less astute than the *pundly's* would have had no trouble in figuring that one out.

If the *pundly* had not talked, he told himself, I never would have known. If it had died at once and not had a chance to taunt me, I would not have known. I would even now be walking to the house on Summit avenue.

He stood lonely and naked of soul in the wind that swept across

the moated island. There was a sour bitterness in his mouth.

He moved a foot and touched the dead *pundly*.

"I'm sorry," he told the stiffening body. "I'm sorry now I did it. If I had known, I never would have killed you."

Stiffly erect, he moved away.

III

HE STOPPED at the street corner, keeping well in the shadow. Halfway down the block, and on the other side, was the house. A light burned in one of the rooms upstairs and another on the post beside the gate that opened into the yard, lighting the walk up to the door.

Just as if, he told himself, the house were waiting for the master to come home. And that, of course, was exactly what it was doing. An old lady of a house, waiting, hands folded in its lap, rocking very gently in a squeaky chair . . . and with a gun beneath the folded shawl.

His lip lifted in half a snarl as he stood there, looking at the house. What do they take me for, he thought, putting out a trap in plain sight and one that's not even baited? Then he remembered. They would not know, of course, that he knew he was a duplicate. They would think that he would think that he was Henderson James, the one and only. They would expect him to come walking home, quite

naturally, believing he belonged there. So far as they would know, there would be no possibility of his finding out the truth.

And now that he had? Now that he was here, across the street from the waiting house?

He had been brought into being, had been given life, to do a job that his original had not dared to do, or had not wanted to do. He had carried out a killing his original didn't want to dirty his hands with, or risk his neck in doing.

Or had it not been that at all, but the necessity of two men working on the job, the original serving as a focus for the *puudly's* watchful mind while the other man sneaked up to kill it while it watched?

No matter what, he had been created, at a good stiff price, from the pattern of the man that was Henderson James. The wizardry of man's knowledge, the magic of machines, a deep understanding of organic chemistry, of human physiology, of the mystery of life, had made a second Henderson James. It was legal, of course, under certain circumstances . . . for example, in the case of public policy, and his own creation, he knew, might have been validated under such a heading. But there were conditions and one of these was that a duplicate not be allowed to continue living once it had served the specific purpose for which it had been created.

Usually such a condition was a simple one to carry out, for the

duplicate was not meant to know he was a duplicate. So far as he was concerned, he was the original. There was no suspicion in him, no foreknowledge of the doom that was invariably ordered for him, no reason for him to be on guard against the death that waited.

The duplicate knitted his brow, trying to puzzle it out.

There was a strange set of ethics here.

HE WAS alive and he wanted to stay alive. Life, once it had been tasted, was too sweet, too good, to go back to the nothingness from which he had come . . . or would it be nothingness? Now that he had known life, now that he was alive, might he not hope for a life after death, the same as any other human being? Might not he, too, have the same human right as any other human to grasp at the shadowy and glorious promises and assurances held out by religion and by faith?

He tried to marshal what he knew about those promises and assurances, but his knowledge was illusive. A little later he would remember more about it. A little later, when the neural bookkeeper in his mind had been able to coordinate and activate the knowledge that he had inherited from the pattern, he would know.

He felt a trace of anger stir deep inside of him, anger at the unfairness of allowing him only a few

short hours of life, of allowing him to learn how wonderful a thing life was, only to snatch it from him. It was a cruelty that went beyond mere human cruelty. It was something that had been fashioned out of the distorted perspective of a machine society that measured existence only in terms of mechanical and physical worth, that discarded with a ruthless hand whatever part of that society had no specific purpose.

The cruelty, he told himself, was in ever giving life, not in taking it away.

His original, of course, was the one to blame. He was the one who had obtained the *proudly* and allowed it to escape. It was his fumbling and his inability to correct his error without help which had created the necessity of fashioning a duplicate.

And yet, could he blame him?

Perhaps, rather, he owed him gratitude for a few hours of life at least, gratitude for the privilege of knowing what life was like. Although he could not quite decide whether or not it was something which called for gratitude.

He stood there, staring at the house. That light in the upstairs room was in the study off the master bedroom. Up there Henderson James, original, was waiting for the word that the duplicate had come home to death. It was an easy thing to sit there and wait, to sit and wait for the word that was sure to

come. An easy thing to sentence to death a man one had never seen, even if that man be the walking image of one's self.

It would be a harder decision to kill him if you stood face to face with him . . . harder to kill someone who would be, of necessity, closer than a brother, someone who would be, even literally, flesh of your flesh, blood of your blood, brain of your brain.

THREE would be a practical side as well, a great advantage to be able to work with a man who thought as you did, who would be almost a second self. It would be almost as if there were two of you.

A thing like that could be arranged. Plastic surgery and a price for secrecy could make your duplicate into an unrecognizable other person. A little red tape, some finagling . . . but it could be done. It was a proposition that Henderson James, duplicate, thought would interest Henderson James, original. Or at least he hoped it would.

The room with the light could be reached with a little luck, with strength and agility and determination. The brick expanse of a chimney, its base cloaked by shrubs, its length masked by a closely growing tree, ran up the wall. A man could climb its rough brick face, could reach out and swing himself through the open window into the lighted room.

And once Henderson James, orig-

inal, stood face to face with Henderson James, duplicate . . . well, it would be less of a gamble. The duplicate then would no longer be an impersonal factor. He would be a man and one that was very close to his original.

There would be watchers, but they would be watching the front door. If he were quiet, if he could reach and climb the chimney without making any noise, he'd be in the room before anyone would notice.

He drew back deeper in the shadows and considered. It was either get into the room and face his original, hope to be able to strike a compromise with him, or simply to light out . . . to run and hide and wait, watching his chance to get completely away, perhaps to some far planet in some other part of the Galaxy.

Both ways were a gamble, but one was quick, would either succeed or fail within the hour; the other might drag on for months

with a man never knowing whether he was safe, never being sure.

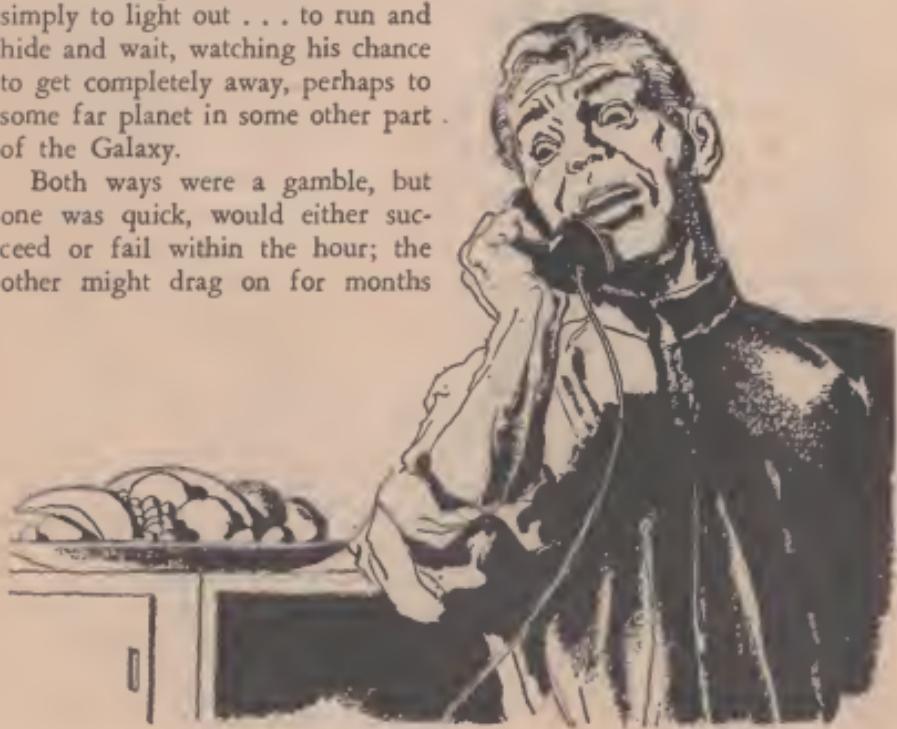
Something nagged at him, a persistent little fact that skittered through his brain and eluded his efforts to pin it down. It might be important and then, again, it might be a random thing, simply a floating piece of information that was looking for its pigeonhole.

His mind shrugged it off.

The quick way or the long way?

He stood thinking for a moment and then moved swiftly down the street, seeking a place where he could cross in shadow.

He had chosen the short way.



and enfold him in its comfort of belonging.

Here were the books, the fireplace with its mantel loaded with souvenirs, the easy chairs, the liquor cabinet . . . and all were a part of him, a background that was as much a part of Henderson James as his body and his inner thoughts were a part of him.

This, he thought, is what I would have missed, the experience I never would have had if the *pudly* had not taunted me. I would have died an empty and unrelated body that had no actual place in the universe.

The phone purred at him and he stood there startled by it, as if some intruder from the outside had pushed its way into the room, shattering the sense of belonging that had come to him.

THE room was empty.

He stood beside the window, quietly, only his eyes moving, searching every corner, checking against a situation that couldn't seem quite true . . . that Henderson James was not here, waiting for the word.

Then he strode swiftly to the bedroom door and swung it open. His finger found the switch and the lights went on. The bedroom was empty and so was the bath. He went back into the study.

He stood with his back against the wall, facing the door that led into the hallway, but his eyes went over the room, foot by foot, orienting himself, feeling himself flow into the shape and form of it, feeling familiarity creep in upon him



The phone rang again and he went across the room and picked it up.

"James speaking," he said.

"That you, Mr. James?"

The voice was that of Anderson, the gardener.

"Why, yes," said the duplicate. "Who did you think it was?"

"We got a fellow here who says he's you."

Henderson James, duplicate, stiffened with fright and his hand, suddenly, was grasping the phone so hard that he found the time to wonder why it did not pulverize to bits beneath his fingers.

"He's dressed like you," the gardener said, "and I knew you went out. Talked to you, remember? Told you that you shouldn't? Not with us waiting for that . . . that thing."

"Yes," said the duplicate, his voice so even that he could not believe it was he who spoke. "Yes, certainly I remember talking with you."

"But, sir, how did you get back?"

"I came in the back way," the even voice said into the phone. "Now what's holding you back?"

"He's dressed like you."

"Naturally. Of course he would be, Anderson."

"You remember," the duplicate said, "that we talked about it."

"I guess I was excited and forgot," admitted Anderson. "You told me to call you, to make sure you were in your study, though. That's right, isn't it, sir?"

"You've called me," the duplicate said, "and I am here."

"Then the other one out here is him?"

"Of course," said the duplicate. "Who else could it be?"

He put the phone back into the cradle and stood waiting. It came a moment after, the dull, throaty cough of a gun.

He walked to a chair and sank into it, spent with the knowledge of how events had so been ordered that now, finally, he was safe, safe beyond all question.

Soon he would have to change into other clothes, hide the gun and the clothes that he was wearing. The staff would ask no questions, most likely, but it was best to let nothing arouse suspicion in their minds.

He felt his nerves quieting and he allowed himself to glance about the room, take in the books and furnishings, the soft and easy . . . and earned . . . comfort of a man solidly and unshakably established in the world.

He smiled softly.

"It will be nice," he said.

It had been easy. Now that it was over, it seemed ridiculously easy. Easy because he had never

AND that, to be sure, didn't quite follow, but Anderson wasn't too bright to start with and now he was somewhat upset.

seen the man who had walked up to the door. It was easy to kill a man you have never seen.

With each passing hour he would slip deeper and deeper into the personality that was his by right of heritage. There would be no one to question, after a time not even himself, that he was Henderson James.

The phone rang again and he got up to answer it.

A pleasant voice told him, "This is Allen, over at the duplication lab. We've been waiting for a report from you."

"Well," said James, "I . . ."

"I just called," interrupted Allen, "to tell you not to worry. It slipped my mind before."

"I see," said James, though he didn't.

"We did this one a little differently," Allen explained. "An experiment that we thought we'd try out. Slow poison in his blood-stream. Just another precaution. Probably not necessary, but we like to be positive. In case he fails to show up, you needn't worry any."

"I am sure he will show up."

Allen chuckled. "Twenty-four hours. Like a time bomb. No antidote for it even if he found out somehow."

"It was good of you to let me know," said James.

"Glad to," said Allen. "Good night, Mr. James."

—CLIFFORD D. SIMAK

THERE'S STILL TIME

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Socrates

By JOHN CHRISTOPHER

I HAD closed the lab for the afternoon and was walking down toward the front gate, meaning to take a bus into town, when I heard the squeals from the direction of the caretaker's cottage. I'm fond of animals and hate to hear them in pain, so I walked through the gate into the cottage yard. What I saw horrified me.

Jennings, the caretaker, was holding a young puppy in his hand and beating its head against the stone wall. At his feet were three dead puppies, and as I came through the gate he tossed a fourth among them, and picked up the last squirming remnant of the litter. I called out sharply:

"Jennings! What's going on?"



A man's best friend may be his dog . . . but a dog's is not necessarily his master. A dog like Socrates, especially.

Illustrated by PETER BURCHARD

He turned to face me, still holding the puppy in his hand. He is a surly-looking fellow at best, but now he looked thunderous.

"What the hell do you think I'm doing?" he demanded. "Killing off a useless litter—that's what I'm doing."

He held the pup out for me to observe.

"Here," he went on, "have a look at this and you'll see why."

I looked closely. It was the queerest pup I had ever seen. It had a dirty, tan coat and abnormally thick legs. But it was the head that drew attention. It must have been fully four times the size of any ordinary pup of its breed; so big that, although its neck was sturdy, the



head seemed to dangle on it like an apple on a stalk.

"It's a queer one, all right," I admitted.

"Queer?" he exclaimed. "It's a monster, that's what it is." He looked at me angrily. "And I know the cause of it. I'm not a fool. There was a bit in the Sunday papers a couple of weeks back about it. It's them electrical X-ray machines you have up at the House. It said in the paper about X-rays being able to influence what's to be born and make monsters of them. And look at this for a litter of pedigree airedales; not one that would make even a respectable mongrel. Thirty quid the price of this litter at the very least."

"It's a pity," I said, "but I'm pretty sure the company won't accept responsibility. You must have let your bitch run loose beyond the inner gate and there's no excuse for that. It's too bad you didn't see that bit in the Sunday paper a few weeks earlier; you might have kept her chained up more. You know you've been warned about going near the plant."

"Yes," he snarled, "I know what chance I've got of getting money out of those crooks. But at least I can get some pleasure out of braining this lot."

He prepared to swing the pup against the wall. It had been quiet while we were talking, but now it gave one low howl and opened large eyes in a way that seemed

fantastically to suggest that it had been listening to our conversation, and knew its fate was sealed. I grabbed hold of Jennings' arm pretty roughly.

"Hold on," I said. "When did you say those pups were born?"

"This morning," he growled.

I said, "But its eyes are open. And look at the color! Have you ever seen an airedale with blue eyes before?"

He laughed unpleasantly. "Has anybody ever seen an airedale with a head like that before, or a coat like that? It's no more an airedale than I am. It's a cur. And I know how to deal with it."

THE pup was whining to itself, as though realizing the futility of making louder noises. I pulled my wallet out.

"I'll give you a quid for it," I said.

He whistled. "You must be mad," he said. "But why should that worry me? It's yours for the money. Taking it now?"

"I can't," I said. "My landlady wouldn't let me. But I'll pay you ten bob a week if you will look after it till I can find it a place. Is it a deal?"

He put his hand out again. "In advance?"

I paid him.

"I'll look after it, guv'nor, even though it goes against the grain. At any rate it'll give Glory something to mother."

AT LEAST once a day, sometimes twice, I used to call in to see how the pup was getting along. It was progressing amazingly. At the end of the second week Jennings asked for an increase of 2/6d. in the charge for keeping it, and I had to agree. It had fed from the mother for less than a week, after which it had begun to eat its own food, and with a tremendous appetite.

Jennings scratched his unkempt head when he looked at it. "I don't know. I've never seen a dog like it. Glory didn't give it no lessons in eating or drinking. It just watched her from the corner and one day, when I brought fresh stuff down, it set on it like a wolf. It ain't natural."

Watching the pup eat, I was amazed myself. It seemed to have more capacity for food than its mother, and you could almost see it putting on weight and size. And its cleverness! It was hardly more than a fortnight old when I surprised it carefully pawing the latch of the kennel door open, to get at some food that Jennings had left outside while going out to open the gates. But even at that stage I don't think it was such superficial tricks that impressed me, so much as the way I would catch it watching Jennings and me as we leaned over the kennel fence discussing it. There was such an air of attentiveness about the way it sat, with one ear cocked, a puzzled frown on that

broad-browed, most uncanine face.

Jennings said one day, "Thought of a name for him yet?"

"Yes," I said. "I'm going to call him Socrates."

"Socrates?" repeated Jennings. "Something to do with football?"

I smiled. "There was another great thinker with that name several thousand years ago. A Greek."

"Oh," Jennings said scornfully, "a Greek . . ."

One Friday evening I brought a friend down to see Socrates—a man who had made a study of dogs. Jennings wasn't in. This didn't surprise me because he habitually got drunk at least one evening a week and Friday was his favorite. I took my friend around to the kennels.

He didn't say anything when he saw the pup, which was now, after three weeks, the size of a large fox-terrier. He examined it carefully, as though he were judging a prize winner at Cruft's. Then he put it down and turned to me.

"How old did you say this dog is?" he asked.

I told him.

He shook his head. "If it were anyone but you who told me, I would call him a liar," he said. "Man, I've never seen anything like it. And that head . . . You say the rest of the litter were the same?"

"The bodies looked identical," I told him. "That's what impressed me. You are liable to get queer freak mutations round these new

labs of ours—double-headed rats and that sort of thing—but five the same in one litter! That looked like a true mutation to me."

He said, "Mutations I'm a bit shaky about, but five alike in one litter look like a true breed to me. What a tragedy that fool killed them."

"He killed a goose that might have laid him some very golden eggs," I said. "Quite apart from the scientific importance of it—I should imagine a biologist would go crazy at the thought—a new mutated breed like this would have been worth a packet. Even this one dog might have all sorts of possibilities. Look!"

Socrates had pushed an old tin against the wall of the kennel and was using it in an attempt to scale the fence barring the way to the outer world. His paws scrabbled in vain a few inches from the top.

"Good God!" my friend said. "If it can do that after a month . . ."

WE TURNED and left the kennels. As we came out I collided with Jennings. He reeled drunkenly past us.

"Come to feed little Shocratesh," he said thickly.

I held his shoulder. "That's all right," I said. "We've seen to them."

When I dropped in the following day, I was surprised to see a huge, roughly painted sign hanging over the kennel door. It read:

PRIVATE. NO ADMITTANCE.

I tried the door, but it was locked. I looked around. Jennings was watching me.

"Hello, Professor," he said. "Can't you read?"

I said, "Jennings, I've come for the pup. My friend is going to look after him at his kennels."

Jennings grinned. "Sorry," he said, "the dog's not for sale."

"What do you mean?" I exclaimed. "I bought him four weeks ago. And I've been paying you for his keep."

"You got any writing that says that, Professor?" he asked. "You got a bill of sale?"

"Don't be ridiculous, Jennings," I said. "Open the door up."

"You even got any witnesses?" he asked. He came over to me confidentially.

"Look," he said, "you're a fair man. I heard you telling your friend last night that dog's a gold mine. You know I own him by rights. Here, I'm a fair man myself. Here's three pounds five; the money I've had from you in the last four weeks. You know he's my gold mine by rights. You wouldn't try to do a man like me. You know I paid five quid stud fee for that litter."

"It was a bargain," I said. "You were going to throw the pup at the wall—don't forget that. You wouldn't even know the dog was anything out of the ordinary now,

except for listening to a private conversation last night." I found my wallet. "Here's ten pounds. That will make good the stud fee and a little extra profit for yourself into the bargain."

He shook his head. "I'm not selling, Professor. And I know my rights in the law. You've got no proof; I've got possession."

I said, "You idiot! What can you do with him? He will have to be examined by scientists, tested, trained. You don't know anything about it."

Jennings spat on the ground. "Scientists!" he exclaimed. "No, I'm not taking him to no scientists. I've got a bit of money saved up. I'm off away from here tomorrow. I'll do the training. And you watch the theaters for the big bill boards in a few months' time—George Jennings and his Wonder Dog, Socrates! I'll be up at the West End inside a year."

IT WAS only three months later that I saw the name on the bills outside the Empire Theater in Barchester. There had been no word from Jennings during that time. As he had said he would, he had gone with the dog, vanishing completely. Now he was back, and the bill read as he had told me it would:

GEORGE JENNINGS AND HIS WONDER DOG, SOCRATES

I went in and bought a seat in the front row. There were some knockabout comedians fooling together on the stage; and after them a team of rather tired-looking acrobats. Jennings was the third in appearance. He strode on to a fanfare of trumpets, and behind him loped Socrates.

He was bigger and his rough, tan coat was shaggier than ever. His head was more in proportion to his body, too, but it was still huge. He looked nearer to a St. Bernard than any breed I could think of, but he was very little like a St. Bernard. He was just Socrates, with the same blue eyes blazing that had surprised me that afternoon four months before.

Jennings had taught him tricks, all right. As they reached the center of the stage, Socrates staggered up on to his hind legs, waddled to the footlights and saluted the audience. He swung effortlessly from the trapezes the acrobats had left, spelled out words in reply to Jennings' questions, pulling alphabet blocks forward with his teeth. He went through all the repertoire that trick dogs usually follow, capping them with an assurance that made the audience watch in respectful silence. But when he left, walking stiffly off the stage, the ovation was tremendous. They came back half a dozen times for encores, Socrates saluting gravely each time the mob of hysterical humans before him. When they had left for

the last time, I walked out, too.

I bribed the doorman to let me know the name of Jennings' hotel. He wasn't staying with the rest of the music-hall people but by himself in the Grand. I walked over there late in the evening, and had my name sent up. The small, grubby page boy came back in a few minutes.

"Mr. Jennings says you're to go right up," he told me, and added the floor and room number.

I KNOCKED and heard Jennings' voice answer, "Come in!"

He seemed more prosperous than the Jennings I had known, but there was the same shifty look about him. He was sitting in front of the fire wearing an expensive blue-and-gold dressing gown, and as I entered the room he poured himself whisky from a decanter. I noticed that his hand shook slightly.

"Why," he said thickly, "if it isn't the professor! Always a pleasure to see old friends. Have a drink, Professor."

He helped me to whisky.

"Here's to you, Professor," he said, "and to Socrates, the Wonder Dog!"

I said, "Can I see him?"

He grinned. "Any time you like. Socrates!"

A door pushed open and Socrates walked in, magnificent in his bearing and in the broad, intelligent face from which those blue eyes looked out. He advanced to Jen-

nings' chair and dropped into immobility, head couched between powerful paws.

"You seen our show?" Jennings asked.

I nodded.

"Great, isn't it? But it's only the beginning. We're going to show them! Socrates, do the new trick."

Socrates jumped up and left the room, returning a moment later pulling a small wooden go-cart, gripping a rope attached to it in his teeth. I noticed that the cart had a primitive pedal arrangement near the front, fixed to the front wheels. Socrates suddenly leaped into the cart, and, moving the pedals with his paws, propelled himself along the room. As he reached the wall, the cart swerved and I noticed that his tail worked a rudderlike arrangement for steering. He went the reverse length of the room and turned again, but this time failed to allow enough clearance. The cart hit the side wall and Socrates toppled off.

Jennings rose to his feet in an instant. He snatched a whip from the wall, and, while Socrates cowered, thrashed him viciously, cursing him all the time for his failure.

I jumped forward and grappled with Jennings. At last I got the whip away from him and he fell back exhausted in the chair and reached for the whisky decanter.

I said angrily, "You madman! Is this how you train the dog?"

He looked up at me over his

whisky glass. "Yes," he said, "this is my way of training him! A dog's got to learn respect for his master. He doesn't understand anything but the whip. Socrates!"

He lifted his whip hand, and the dog cowered down.

"I've trained him," he went on. "He's going to be the finest performing dog in the world before I'm through."

I said, "Look, Jennings, I'm not a rich man, but I've got friends who will advance me money. I'll get you a thousand pounds for Socrates."

HE SNEERED. "So you want to cash in on the theaters, too?"

"I promise that if you sell Socrates to me, he will never be used for profit by anyone."

He laughed. "A hell of a lot I care what would happen to him if I sold him. But I'm not selling; not for a penny under £20,000. Why, the dog's a gold mine."

"You are determined about that?" I asked.

He got up again. "I'll get you the advance bills for our next engagement," he said. "Top billing already! Hang on; they're only next door."

He walked out unsteadily. I looked down to where Socrates lay, watching everything in the way that had fascinated me when he was a pup. I called to him softly: "Socrates."

He pricked up his ears. I felt

crazy, but I had to do it. I whispered to him:

"Socrates, follow me back as soon as you can get away. Here, take the scent from my coat."

I held my sleeve out to him, and he sniffed it. He wagged his huge, bushy tail slowly. Then Jennings was back with his billheads, and I made my excuses and left.

I walked back—a matter of two or three miles. The more I thought, the more insane did it seem that the dog could have heeded and understood my message. It had been an irrational impulse.

I had found new accommodation in the months since Jennings' disappearance; in a cottage with a friendly, old couple. I had brought Tess, my own golden retriever, from home, and they both adored her. She was sitting on the inside window ledge as I walked slowly up the garden path, and her barks brought old Mrs. Dobby to the door to let me in. Tess came bouncing to meet me and her silky paws were flung up toward my chest. I patted and stroked her into quietness and, after washing, settled down to a pleasant tea.

Two or three hours later, the Dobbys having gone to bed, I was sitting reading by the fire when I heard a voice at the door.

I called, "Who's there?"

This time it was a little more distinct, though still garbled, as though by a person with a faulty palate. I heard, "Socrates."

I threw the door open quickly. Socrates stood there, eyes gleaming, tail alert. I looked beyond him into the shadows.

"Who's brought you, old chap?" I asked.

Socrates looked up. His powerful jaws opened. I could see teeth gleaming whitely.

Socrates said, slurring the words, but intelligible, "Me. Can speak."

I BROUGHT him in, shelving my incredulity. Sitting in the Dobbys' cosy room in front of a glowing fire, it seemed more fantastic than ever. Half to myself, I said, "I can't believe it."

Socrates had sat down on the rug. "True, though," he said.

I asked, "Does Jennings know?"

Socrates replied, "No. Have told no one else. Would only make into tricks."

"But Jennings knows you can hear and understand things?"

"Yes. Could not hide. Jennings whips until I learn. Easier to learn at once."

His voice, a kind of low, articulate growling, became more readily understandable as I listened to it. After a few minutes it did not seem at all strange that I was sitting by the fire talking to a half-grown but large mongrel dog. He told me how he had practiced human speech by himself, forcing his throat to adapt itself to the complexities, succeeding through a long process of trial and error.

I said, in amazement, "But, Socrates, you are barely four months old!"

His brow wrinkled. "Yes. Strange. Everything goes so fast for me. Big . . . old . . ."

"Maturity," I supplied. "Of course there have been 'talking dogs' before, but they were just stunts, no real intelligence. Do you realize what a phenomenon you are, Socrates?"

The vast canine face seemed to smile. "How not realize?" he asked. "All other dogs—such fools. Why that, Professor?"

I told him of his birth. He seemed to grasp the idea of X-ray mutation very easily. I suppose one can always swallow the facts of one's own existence. He remembered very little of that first month of infancy. When I told him of the fate of the rest of his litter, he was saddened.

"Perhaps best not to know that," he said. "Sad to think I might have had brothers and sisters like me. Not to be always a trick dog."

"You don't need to be a trick dog, Socrates," I said. "Look, we'll go away. I've got friends who will help. You need never see Jennings again."

Socrates said, "No. Not possible. Jennings the master. I must go back."

"But he beats you! He may beat you for going out now."

"He will," Socrates said. "But worth it to come see you."

"Look, Socrates," I said. "Jennings isn't your master. No free intelligence should be a slave to another. Your intelligence is much more advanced than Jennings'."

The big head shook. "For men, all right. Dogs different."

"But you aren't even Jennings' dog," I said. I told him the story of Jennings' trickery; how he had sold Socrates to me and then refused to acknowledge the sale. Socrates was not impressed.

"Always Jennings' dog," he said. "Not remember anything else. Must go back. You not dog—not understand."

I said half-heartedly, "We would have a fine time, Socrates. You could learn all sorts of things. And be free, completely free."

But I knew it was no use. Socrates, as he said, was still a dog, even though an intelligent one, and the thousands of years of instinctive slavery to a human master had not been quenched by the light that brought intelligence and reasoning to his brain.

He said, "Will come here to learn. Will get away often."

"And be beaten by Jennings every time you go back?"

Socrates shivered convulsively. "Yes," he said. "Worth it. Worth it to learn things. You teach?"

"I'll teach you anything I can, Socrates," I promised.

"Can mutate more dogs like me?"

I hated to say it. "No, Socrates.

You were a fluke, an accident. X-rays make monsters; once in a million, million times, perhaps, something like you happens."

The bushy tail drooped disconsolately. The huge head rested a moment between his paws. Then he stood up, four-legged, an outcast.

"Must go now. Will come again soon."

I let him out and saw him lop away into the night. I turned back into the warm firelit room. I thought of Socrates, running back through the night to Jennings' whip and I knew what anger and despair were.

SOCRATES came quite frequently after that. He would sit in front of me while I read to him from books. At first he wanted to be taught to read for himself, but the difficulty of turning pages with his clumsy paws discouraged him. I read to him from all the books he wanted.

His appetite was voracious, but lay chiefly along non-technical lines; naturally enough, in view of the impossibility of his ever being able to do even the simplest manual experiments. Philosophy interested him, and I found my own education improving with Socrates' as he led me deeper and deeper into mazes of idealism, epistemology and sublimination. He enjoyed poetry, too, and composed a few rough poems, which had the merit of a strange non-human approach. But

he would not let me write them down; now I can remember only a few isolated lines.

His most intense interest was in an unexpected field. I mentioned casually one day some new development in psychical research, and his mind fastened on the subject immediately. He told me he could see all sorts of queer things which he knew humans could at the best sense only vaguely. He spent nearly an hour one evening describing to me the movements of a strange spiral-shaped thing that, he said, was spinning around slowly in one corner of my room, now and then increasing and decreasing in size and making sudden jumps. I walked over to the place he indicated and put my hand through vacancy.

"Can hear it, too," Socrates said. "High, sweet noise."

"Some people have unusual senses and report similar things," I told him.

He made me read through every book I could find on paranormal phenomena, in search of explanations of the oddities that surrounded him, but they annoyed him.

"So many fools," he said wearily, when we put down one book that had painstakingly linked up poltergeists with angels. "They did not see. They only wanted to. They thought they did."

The Dobbys were a little curious at my new habit of reading aloud in my room, and once I saw them glancing suspiciously at Socrates

when he changed his speech into a growl as they came into the house from the garden. But they accepted his strange appearances and disappearances quite easily, and always made a fuss of him when he happened to turn up during my absence.

WE DID not always read. At times we would go out into the fields, and he and Tess would disappear in search of rabbits and birds and all the other things that fascinate dogs in the country. I would see them a field away, breasting the wind together. Socrates badly needed such outings. Jennings rarely took him out, and, as Socrates spent all the time he could filch from Jennings' training activities with me, he saw no other dogs and had no other exercise. Tess was very fond of him and sometimes whined when we shut her out from my room, in order to read and talk undisturbed. I asked Socrates about her once.

He said, "Imagine all dogs intelligent; all men fools. You the only intelligent man. You talk to dogs, but you not like pretty women, even though they are fools?"

Then, for months, Socrates disappeared, and I learned that Jennings was touring the north of England, having a sensational success. I saw also the announcement that he was to return to Barcaster for a fortnight early in November. I waited patiently. On the morn-

ing before he was due to open, Socrates returned.

He was looking as fit as ever physically, but mentally the tour had been a strain for him. In philosophy he had always inclined to defeatism, but it had been defeat with a sense of glory. He had reveled in Stapledon's works, and drawn interesting comparisons between himself and Stapledon's wonder sheepdog. Now, however, there was a listlessness about him that made his defeatism a drab and unhappy thing. He would not read philosophy, but lay silent while I read poetry to him.

JENNINGS, I discovered, had steadily increased his bouts of drunkenness. Socrates told me that he had to carry the act by himself now; Jennings was generally too drunk to give even the most elementary instructions on the stage.

And, of course, with the drunkenness came the whippings. There were nasty scars on the dog's back. I treated them as well as I could, but increasingly I hated and dreaded the time when he would say, "Must go now," and I would see him lop off, tail low, to face Jennings' drunken fury.

I remonstrated with him again, begging him to come away with me, but it was beyond reason. The centuries of slavery could not be eradicated. He always went back to Jennings.

Then he came one afternoon. It

had been raining for days, and he was wet through. He would not stay in front of the fire to dry. The rain was slackening a little. I took my raincoat, and, with Tess frisking beside us, we set out. We walked on in silence. Even Tess grew subdued.

At last, Socrates said, "Can't go on for long. Whipped me again last night. Felt something burn my mind. Almost tore his throat out. I will do it soon and they will shoot me."

"They won't shoot you," I said. "You come to me. You will be all right. Come now, Socrates. Surely you don't want to go on serving Jennings when you know you may have to kill him?"

He shivered, and the raindrops ran off his shaggy back.

"Talking no good," he said. "I must go back. And if he whips me too much, I must kill him. I will be shot. Best that way."

We had reached the river. I paused on the bridge that spanned it a few inches above the swirling currents of the flood, and looked out. The river was high after the rain, running even more swiftly than it usually did. Less than a quarter of a mile away was the fall, where the water cascaded over the brink into a raging turmoil below. I was looking at it abstractedly when I heard Jennings' voice.

He stood at the other end of the bridge. He was raging drunk.

He called, "So there you are!"

And that's what you've been up to—sneaking off to visit the professor. I thought I might catch you here."

He advanced menacingly up the bridge. "What you need, my lad, is a taste of the whip."

He was brandishing it as he walked. I waited until he had al-

away, staggered, fell—and disappeared into the violently flowing river.

I saw his face appear a few yards down. He screamed and went under again. I turned to Socrates.

"It's all over," I said. "You are free. Come home, Socrates."

The head appeared again, and



most reached the place where Socrates was cowering on the boards, waiting for the blow, and then I charged him savagely. He fought for a moment, but I was sober and he was not. I caught one of his legs and twisted. He pulled viciously

screamed more faintly. Socrates stirred. He called to Jennings for the first and last time:

"Master!"

Then he was over the bridge and swimming down frantically toward the drowning man. I called after

him, but he took no notice. I thought of jumping in myself, but I knew I could not last even to reach him. With Tess at my heels, I raced round the bank to the place where the water roared over the fall.

I saw them just as they reached the fall. Socrates had reached him, and was gripping the coat in his teeth. He tried to make for the bank, but there was no chance. They swept over the edge and into the fury below. I watched for their reappearance for some time, but they did not come up.

They never came up.

I think sometimes of the things Socrates might have done if he had been given the chance. If only for those queer things he saw that we

cannot see, his contribution to knowledge would have been tremendous. And when I think that he was less than a year old when he died, the lost possibilities awe and sadden me.

I cannot escape the conclusion that at his full maturity he would have outstripped all the specialists in the strange fields he might have chosen to work in.

There is just one thing that worries me still. His was a true mutation; the identical litter showed that. But was it a dominant one? Could the strength and vigor of his intelligence rise above the ordinary traits of an ordinary dog? It's a point that means a great deal.

Tess is going to have pups.

—JOHN CHRISTOPHER





Trusting allies on the same planet can be difficult enough. But what about allies light-years from you?

TYRANN

By ISAAC ASIMOV

Conclusion of a 3-Part Serial



Illustrated by JOHN BUNCH

SYNOPSIS

BIRON FARRILL, having escaped a death trap on Earth, where he was completing his college education, learns from Sander Joniti, who, like Biron, is a native of the Nebular Kingdoms of the Galaxy, that the elder Farrill, Biron's father, has been captured and probably executed by the Tyranni. The Tyranni are natives of the planet Tyrann, and, fifty years earlier, had conquered all the Nebular Kingdoms.

Biron leaves Earth under an assumed identity, but the attempted

imposture fails, and upon arrival on Rhodia, the largest planet of the Nebular Kingdoms, is delivered to the wily Simok Aratap, Tyrannian Commissioner of the Region.

Meanwhile, Sander Joniti has been searching for a mysterious document said to date back to the pre-atomic age on Earth, for which Biron had earlier been searching on behalf of his father, and the possession of which is supposed to be vital for the success of the conspiracy against Tyrann. He finds that the document has been stolen from the Earth's archives twenty years before.

On Rhodia, Aratap releases Biron, although aware of his identity, in order to trace, through him, the larger threads of the conspiracy. Biron approaches Hinrik, Director of Rhodia, who is a tool of the Tyranni, and who, instead of responding to Biron's plea for help, decides that he has been sent merely as a test of his own loyalty to Tyranni, and therefore orders Biron's arrest and re-delivery to Aratap.

Biron escapes from the palace with the help of Gillbret, Hinrik's cousin, who hates the Tyranni, and Artemisia, Hinrik's daughter, who is faced with a possible marriage of state with an elderly Tyrannian nobleman and can't abide the thought. The three steal Aratap's own space-yacht and escape into space. They are not aware of the fact that Tyranni ships are equipped with devices which enable them to maintain contact with one another through cosmic distances. Aratap, still intent on giving Biron enough rope, follows, without making any immediate attempt to capture them.

On the space-yacht, meanwhile, Gillbret tells Biron and Artemisia that twenty years earlier, he had been stranded in space through an accident and come across a hidden world secretly organizing a military power for use against the Tyranni. He believes the organizer of this "Rebellion World" to be the Autarch of Lingane, an outlying world of the Nebular Kingdoms, never fully conquered by the Tyranni.

They head for Lingane. During the trip, Biron and Artemisia find themselves falling in love.

At Lingane, they contact the Autarch, who boards their ship. The Autarch turns out to be Sander Jonti. Biron is furious. He has reason to suspect that the original death trap on Earth was set by Jonti himself, rather than by the Tyranni. Jonti admits this and explains that he did so in order to send Biron to the Nebular Kingdoms as a decoy in order to divert suspicion from the real conspiracy. He asks for custody of Artemisia, and, when Biron refuses, tells him that Biron's father was executed as a result of information given the Tyranni by Hinrik of Rhodia.

Jonti also informs them that he is not the organizer of the "Rebellion World," but that he, too, is anxious to find it. From Gillbret's story, he has deduced that it can exist only near one of five possible stars within the Horsehead Nebula itself.

He proposes that they enter the Nebula in order to investigate the five stars, one by one.

Meanwhile, Biron and Artemisia have been estranged because of Jonti's information that her father had betrayed Biron's father to execution by the Tyranni.

Closely behind them, and unknown to them, the Tyranni fleet, under Aratap and Hinrik, are in pursuit.

The story concludes:

CHAPTER XV

The Hole in Space

TEDOR RIZZETT turned as Biron entered the pilot room again. His hair was gray, but his body was still vigorous and his face was broad, red, and smiling.

He covered the distance between himself and Biron in a stride and seized the young man's hand heartily.

"By the stars," he said, "I'd need no word from you to tell me that you are your father's son. It is the old Rancher alive again."

"I wish it were," said Biron, somberly.

Rizzett's smile faltered. "So do we all. Every one of us. I'm Tedor Rizzett, by the way. I'm a colonel in the regular Linganian forces, but we don't use titles in our own little game. We even say merely 'sir' to the Autarch. That reminds me." He looked grave. "We don't have Lords and Ladies or even Ranchers on Lingane. I hope I won't offend if I forget to throw in the proper title sometimes."

Biron shrugged. "As you said, no titles in our little game. But what about the trailer? I'm to make arrangements with you, I take it."

For a flickering moment, he looked across the room. Gillbret was seated, quietly listening. Artemisia had her back to him. Her slim, pale fingers wove an abstracted pattern on the photo-contacts of the

computer. Rizzett's voice brought him back.

The Linganian had cast an all-inclusive glance about the room. "First time I've ever seen a Tyranian vessel from the inside. Don't care much for it. Now you've got the emergency airlock due astern, haven't you? It seems to me the power-thrusters girdle the mid-section."

"That's right."

"Good. Then there won't be any trouble. Some of the old model ships have power-thrusters due astern, so that trailers had to be set off at an angle. This makes the gravity adjustment difficult and the maneuverability in atmospheres just about nil."

"How long will it take, Rizzett?"

"Not long. How big would you want it?"

"How big could you get it?"

"Super-de-luxe? Sure. If the Autarch says so, there's no higher priority. We can get one that's practically a spaceship in itself. It would even have its own auxiliary motors."

"It would have living quarters, I suppose."

"For Miss Hinriad? It would be considerably better than you have here."

At the mention of her name, Artemisia had drifted past coldly and slowly, moving out of the pilot room. Biron's eyes followed her.

Rizzett said, "I guess I shouldn't have said Miss Hinriad."

"It's nothing. Pay no attention. You were saying?"

"Oh, about the rooms. At least two sizable ones, with a communicating shower. It's got the usual closet room and plumbing arrangements of the big liners. She would be comfortable."

"Good. We'll need food and water."

"Sure. Water tank will hold a two months' supply; a little less if you want to arrange for a swimming pool aboard ship. And you would have frozen whole meats. You're eating Tyranni concentrate now, aren't you?"

Biron nodded and Rizzett grimaced. "It tastes like chopped sawdust, doesn't it? Want anything else?"

"A supply of clothes for the lady," said Biron.

Rizzett wrinkled his forehead. "Yes, of course. Well, that will be her job."

"It won't. We'll supply you with all necessary measurements, and you can supply us with whatever we ask for in whatever the current styles happen to be."

Rizzett laughed shortly and shook his head. "Rancher, she won't like that. She wouldn't be satisfied with any clothes she didn't pick. Not even if they were the identical items she would have picked if she had been given the chance. This isn't a guess, now. I've had experience with the creatures."

Biron said, "I'm sure you're

right, Rizzett, but that's the way it will have to be."

"Well, don't say I didn't warn you. It will be your argument. What else?"

"Little things. A supply of detergents. Oh, yes, and cosmetics, perfume, the things women need. We'll make the arrangements in time. Let's get the trailer started."

And now Gillbret was leaving without speaking. Biron's eyes followed him, too, and he felt his jaw-muscles tighten. Hinriads! Gillbret was one and *she* was another.

He said, "And, of course, there'll be clothes for Mr. Hinriad and myself. They're not important."

"Right! Mind if I use your radio? I'd better stay on this ship till the adjustments are made."

BIRON waited, while the orders went out. Then Rizzett turned on the seat and said, "I can't get used to seeing you here, moving, talking, alive. You're so like him. The Rancher used to speak about you every once in a while. You went to school on Earth, didn't you?"

"I did. I would have graduated a little over a week ago, if things hadn't been interrupted."

Rizzett looked uncomfortable. "Look, about your being sent to Rhodia the way you were. You mustn't hold it against us. We didn't like it. I mean, this is strictly between us, but some of the boys didn't like it at all. The Au-

tarch didn't consult us, of course. You couldn't expect him to. Frankly, it was a risk on his part. Some of us—I'm not mentioning names—even wondered if we shouldn't stop the liner you were on and take you off. Naturally, that would have been the worst thing we could possibly do. Still, we might have done it, except that in the last analysis we knew the Autarch must know what he was doing."

"IT'S nice to be able to inspire
I that kind of confidence."

"We know him. There's no denying it, he's got it here." He slowly tapped his forehead. "Nobody knows exactly what makes him take a certain course sometimes, yet it always seems the right one. At least he's outsmarted the Tyranni so far and others don't."

"Like my father, for instance."

"I wasn't thinking of him, exactly, but, in a sense, you're right. Even the Rancher was caught. Well, he was a different kind of man. His way of thinking was straight. He would never allow for crookedness. He would always underestimate the worthlessness of the next man. But then again, that was what we liked best, somehow. He was the same to everyone."

"I'm a commoner, for all I'm a colonel. My father was a metal-worker, you see. It didn't make any difference to the Rancher. And it wasn't that I was a colonel, either. If he met the engineer's apprentice

walking down the corridor, he'd step aside, and say a pleasant word or two, and, for the rest of the day, the apprentice would feel like a Master Engineman. It was the way the Rancher had."

"Not that he was soft. If you needed disciplining, you got it, but no more than your share. What you got, you deserved, and you knew it. When he was through, he was through. He didn't keep throwing it at you at odd moments for a week or so. That was the Rancher."

"Now the Autarch, he's different. He's pure brains. You can't get next to him, no matter who you are. For instance, he doesn't really have a sense of humor. I can't speak to him the way I'm speaking to you. Right now I'm just talking. I'm relaxed. It's almost free association. With him, you say exactly what's on your mind with no spare words. *And* you use formal phraseology, or he'll tell you you're slovenly. But then, the Autarch's the Autarch, and that's that."

Biron said, "I'll have to agree with you as far as the Autarch's brains are concerned. Did you know that he had deduced my presence aboard this ship, before he ever got on?"

"He *did*? We didn't know that. Now, there, that's what I mean. He was going to go aboard the Tyrannian cruiser alone. To us, it seemed suicide. We didn't like it."

But we assumed he knew what he was doing, and he did. He could have told us you were probably aboard ship. He must have known it would be great news that the Rancher's son had escaped. But it's typical. He wouldn't."

ARTEMISIA sat on one of the lower bunks in the cabin. She had to bend into an uncomfortable position to avoid having the frame of the second bunk pry into her first thoracic vertebra, but that was a small annoyance to her at the moment.

Almost automatically, she kept passing the palms of her hand down the side of her dress. She felt frayed and dirty, and very tired. She was tired of dabbing at her hands and face with damp cloths. She was tired of wearing the same clothes for a week. She was tired of hair which felt dank and stringy by now.

And then she was almost on her feet again, ready to turn about sharply. She wasn't going to see him. She wouldn't look at him.

But it was only Gillbret. She sank down again. "Hello, Uncle Gil."

Gillbret sat down opposite her. For a moment, his thin face seemed anxious and then it started wrinkling into a smile. "I think a week of this ship is very unamusing, too. I was hoping you could cheer me up."

But she said, "Now, Uncle Gil,

don't start using psychology on me. If you think you're going to cajole me into feeling a responsibility for you, you're wrong. I'm much more likely to hit you."

"If it will make you feel better—"

"I warn you again. If you hold out your face for me to hit, I'll do it, and if you say 'Does that make you feel better?' I'll do it again."

"In any case, it's obvious you've quarreled with Biron. What about?"

"I don't see why there's any necessity for discussion. Just leave me alone." Then, after a pause, "He thinks father did what the Autarch said he did. I hate him for that."

"Your father?"

"No! That stupid, childish, sanctimonious fool!"

"Presumably Biron. Good. You hate him. You couldn't put a knife-edge between what you say is hate and what would seem to my bachelor mind to be a rather ridiculous excess of love."

"Uncle Gil," she said, "could he really have done it?"

"Biron? Done what?"

"No! Father. Could father have informed against the Rancher?"

Gillbret looked thoughtful and very sober. "I don't know." He looked at her out of the corner of his eyes. "He *did* give up Biron to the Tyranni."

"Because he knew it was a trap," she said, vehemently. "And

it was. That horrible Autarch meant it as such. He said so. The Tyranni knew who Biron was and sent him to father on purpose. Father did the only thing he could do. That should be obvious to anybody."

"Even if we accept that, he did try to argue you into a rather unamusing kind of marriage."

She interrupted, "He had no way out there, either."

"My dear, if you're going to excuse all that, how can you be sure he didn't betray the Rancher?"

"Because I'm sure, that's why. You don't know father the way I do. He hates the Tyranni. He *does*. I admit that he's afraid of them and doesn't dare oppose them openly, but if he could avoid it somehow, he would never help them."

"How do you know he could avoid it?"

But she shook her head violently, so that her hair tumbled about and hid her eyes. It hid the tears a bit, too.

Gillbret watched a moment, then spread his hands helplessly and left.

THE trailer was joined to the *Remorseless* by a wasp-waist corridor attached to the emergency airlock in the rear of the ship. It was several dozen times larger than the Tyrannian vessel, almost humorously outsized.

The Autarch joined Biron in a last inspection. He said, "Do you find anything lacking?"

Biron said, "No. I think we'll be quite comfortable."

"Good. And, by the way, Rizzett tells me the lady Artemisia is not well; or at least that she looks unwell. If she requires medical attention, it might be wise to send her to my ship."

"She is quite well," said Biron, curtly.

"If you say so. Would you be ready to leave in twelve hours?"

"In two hours, if you wish."

Biron passed through the connecting corridor—he had to stoop a little—into the *Remorseless* proper.

He said with a careful lack of tone, "You've got a private suite back there, Artemisia. I won't bother you. I'll stay here most of the time."

She replied coldly, "You don't bother me, Rancher. It doesn't matter to me where you are."

And then the ships blasted off and after a single Jump found themselves at the edge of the Nebula. They waited for a few hours while the final calculations were made on Jonti's ship. Inside the Nebula, it would be almost blind navigation.

Biron stared glumly at the visi-plate. There was nothing there! One entire half of the celestial sphere was taken up with blackness, unrelieved by a spark of light. For the first time, Biron realized how warm and friendly the stars were, how they filled space.

"It's like dropping through a hole in space," he muttered to Gill-bret.

And then they jumped again, this time into the Nebula.

Almost simultaneously, Simok Aratap, Commissioner of the Great Khan, at the head of ten armed cruisers, listened to his navigator and said, "That doesn't matter. Follow them anyway."

And not one light year from the point at which the *Remorseless* entered the Nebula, ten Tyranni vessels did likewise.

CHAPTER XVI

Hounds!

SIMOK ARATAP was a little uncomfortable in his uniform. Tyranni uniforms are made of moderately coarse materials and fit only indifferently well. It is not soldier-like to complain of such inconveniences. In fact, it is part of the Tyranni military tradition that a little discomfort on the part of the soldier is good for discipline.

But still Aratap could bring himself to rebel against that tradition to the extent of saying, ruefully, "The tight collar irritates my neck."

Major Andros, whose collar was as tight and who had been seen in no other than military dress in the memory of living man, said, "When alone, it would be quite within regulations to open it. Be-

fore any of the officers or men, any deviation from regulation dress would be a disturbing influence."

Aratap sniffed. It was the second change induced by the quasi-military nature of the expedition. In addition to being forced into uniform, he had to listen to an increasingly self-assertive military aide. That had begun even before they left Rhodia.

Andros had put it to him baldly. He had said, "Commissioner, we will need ten ships."

Aratap had looked up, definitely annoyed. At the moment, he was deciding to follow the young Widemos in a single vessel. He laid aside the capsules in which he was preparing his report for the Khan's Colonial Bureau, to be forwarded in the unhappy case that he did not return from the expedition.

"Ten ships, Major?"

"Yes, sir. Less will not do."

"Why not?"

"I intend to maintain a reasonable security. The young man is going somewhere. You say there is a well-developed conspiracy in existence. Presumably, the two fit together."

"And therefore?"

"We must be prepared for a possibly well-developed conspiracy. One that might be able to overcome a single ship."

"Or ten. Or a hundred. Where does security cease?"

"One must make a decision. In

cases of military action, it is my responsibility. I suggest ten."

Aratap's contact lenses gleamed unnaturally in the wall-light as he raised his eyebrows. The military carried weight. Theoretically, in times of peace, the civilian made the decisions, but, here again, military tradition was a difficult thing to set aside.

HE SAID, cautiously, "I will consider the matter."

"Thank you. If you do not choose to accept my recommendations, and my suggestions have only been advanced as such, I assure you, that would be your privilege. You would leave me, however, no choice but to resign my commission."

It was up to Aratap to retrieve what he could from that position. He said, "It is not my intention to hamper you in any decision you may make on a purely military question, Major. I wonder if you might be as amenable to my decisions in matters of purely political importance."

"What matters are these?"

"There is the problem of Hinrik. You objected yesterday to my suggestion that he accompany us."

The Major said, dryly, "I consider it unnecessary. With our forces in action, the presence of outlanders would be bad for morale."

Aratap sighed softly, just below the limits of hearing. Yet Andros was a competent man in his way.

There would be no use in displaying impatience.

He said, "Again, I agree with you. I merely ask you to consider the political aspects of the situation. As you know, the execution of the old Rancher of Widemos was politically uncomfortable. It stirred up the Kingdoms unnecessarily. However necessary the execution was, it makes it desirable to refrain from having the death of the son attributed to us. As far as the people of Rhodia know, the young Widemos has kidnaped the daughter of the Director—the girl, by the way, being a popular and much publicized member of the Hinriads. It would be quite fitting, quite understandable, to have the Director head the punitive expedition.

"It would be a dramatic move, very gratifying to Rhodian patriotism. Naturally, he would ask for Tyranni assistance, and receive it, but that can be played down. It would be easy, and necessary, to fix this expedition in the popular mind as a Rhodian one. If the inner workings of the conspiracy are uncovered, it will have been a Rhodian discovery. If the young Widemos is executed, it would be a Rhodian execution, as far as the other Kingdoms are concerned."

The Major said, "It would still be a bad precedent to allow Rhodian vessels to accompany a Tyranni military expedition. They would hamper us in a fight. In

that way, the question becomes a military one."

"I did not say, my dear Major, that Hinrik would command a ship. Surely, you know him better than to think him capable of commanding or even anxious to try. He will stay with us. There will be no other Rhodian aboard ship."

"In that case, I waive my objection, Commissioner," said the Major.

THE Tyranni fleet had maintained their position two light years off Lingane for the better part of a week and the situation was becoming increasingly unstable.

Major Andros advocated an immediate landing on Lingane. "The Autarch of Lingane," he said, "has gone to considerable lengths to have us think him a friend of the Khan, but I do not trust these men who travel abroad. They gain unsettling notions. It is strange that just as he returns, the young Widemos travels to meet him."

"He has not tried to hide either his travels or his return, Major. And we do not know that Widemos goes to meet him. He maintains an orbit about Lingane. Why does he not land?"

"Why does he maintain an orbit? Let us question what he does and not what he does not do."

"I can propose something which will fit the pattern."

"I would be glad to hear it."

Aratap placed a finger inside his



collar and tried futilely to stretch it. He said, "Since the young man is waiting, we can presume he is waiting for something or somebody. It would be ridiculous to think that, having gone to Lingane by so direct and rapid a route—a single Jump, in fact—that he is merely waiting out of indecision. I say, then, that he is waiting for a friend or friends to reach him. Thus reinforced, he will proceed elsewhere. The fact that he is not landing on Lingane directly would indicate that he does not consider such an action safe. That would indicate that Lingane in general



It was disturbing to have to control at once the restless conquered and the short-sighted conquerors. Twenty-four hours. Something must happen; otherwise he might have to find some way of stopping Andros.

The door signal sounded, and Aratap looked up with irritation. Surely it could not be Andros returning. It wasn't. The tall, stooped form of Hinrik of Rhodia was in the doorway, behind him a glimpse of the guard who accompanied him everywhere on the ship. Theoretically, Hinrik had complete freedom of movement. He himself probably thought he had. At least, he never paid any attention to the guard at his elbow.

Hinrik smiled mistily. "Am I disturbing you, Commissioner?"

"Not at all. Take a seat, Director." Aratap remained standing. Hinrik seemed not to notice that.

Hinrik said, "I have something of importance to discuss with you." He paused, and some of the intentness passed out of his eyes. He added in quite a different tone, "What a large, fine ship this is."

"Thank you, Director." Aratap smiled tightly. The nine accompanying ships were typically minute in size, but the flagship on which they stood was an outsize model adapted from the designs of the defunct Rhodian navy. It was perhaps the first sign of the gradual softening of the Tyranni military spirit that more and more of such

and the Autarch in particular are not concerned in the conspiracy, although individual Linganians may be."

"I don't know if we can always trust the obvious solution to be the correct one."

"My dear Major, this is not an obvious solution, merely. It is a logical one. It fits a pattern."

"Maybe it does. But just the same, if there are no further developments in twenty-four hours, I will have no choice but to order an advance on Lingane."

Aratap frowned at the door through which the Major had left.

ships were being added to the navy. The fighting unit was still the tiny two to three man cruiser, but, increasingly, the top brass found reasons for requiring large ships for their own headquarters.

It did not bother Aratap. To some of the older soldiers this softness appeared to be degeneration; to himself it seemed increasing civilization. In the end, in centuries perhaps, it might even happen that the Tyranni would melt away as a single people, fusing with the present conquered societies of the Nebular Kingdoms—and perhaps even that might be a good thing.

Naturally, Aratap never expressed such an opinion aloud.

"I came to tell you something," said Hinrik. He puzzled over it a while, then added, "I have sent a message home today to my people. I have told them I am well and that the criminal will be shortly seized and my daughter returned to safety."

"Good," said Aratap. It was not news to him. He himself had written the message, though it was not impossible that Hinrik by now had persuaded himself that he was the writer, or even that he actually headed the expedition. Aratap felt a twinge of pity. The man was disintegrating visibly.

Hinrik said, "My people, I am sure, are quite disturbed over this daring raid upon the Palace by these well-organized bandits. I think they will be proud of their Director now

that I have taken such rapid action in response. Eh, Commissioner? They will see that there is still force among the Hinriads." He seemed filled with a feeble triumph.

"I think they will," said Aratap.

"Are we within range of the enemy yet?"

"No, Director. The enemy remains where he is, just off Lingeane."

"Still? I remember what I came to tell you." He grew excited so that the words tumbled out. "It is very important, Commissioner. I have discovered it. We must take quick action. Treachery—" He was whispering.

ARATAP felt impatient. It was necessary to humor the poor idiot, of course, but this was a waste of time. At this rate, he would become so obviously mad that he would be useless even as a puppet, which would be a nuisance.

He said, "No treachery, Director. Our men are staunch and true. Someone has been misleading you. You are tired."

"No, no." Hinrik put aside Aratap's arm which, for a moment, had rested upon his shoulder. "Where are we?"

"Why, here!"

"The ship, I mean. I have watched the visiplate. We are near no star. We are in deep space. Did you know that?"

"Why, certainly."

"Lingane is nowhere near. Did you know that?"

"It is two light years off."

"Ah! Commissioner, no one is listening? Are you sure?" He leaned closely, while Aratap allowed his ear to be approached. "Then how do we know the enemy is near Lingane? He is too far to detect. We are being misinformed, and this signifies treachery."

WELL, the man might be mad, but the point was a good one. Aratap said, "This is something for technical men, Director; and not for men of rank to concern themselves with."

"But as head of the expedition I should know. I am head, am I not?" He looked about carefully. "Actually, I have a feeling that Major Andros does not always carry out my orders. Is he trustworthy? Of course, I rarely give him orders. It would seem strange to order a Tyrannian officer. But then, I must find my daughter. My daughter's name is Artemisia. She has been stolen from me, and I am taking all this fleet to get her back. So you see, I must know. I mean, I must know how it is known the enemy is at Lingane. My daughter would be there, too. Do you know my daughter? Her name is Artemisia."

His eyes looked up at the Tyrannian Commissioner in appeal. Then he covered them with his hand and mumbled something that sounded like, "I'm sorry."

Aratap felt his jaw-muscles clench. It was difficult to remember that the man before him was a bereaved father and that even the idiot Director of Rhodia might have a father's feelings. He could not let the man suffer.

He said, gently, "I will try to explain. You know there is such a thing as a massometer which will detect ships in space."

"Yes, yes."

"It is sensitive to gravitational effects. You know what I mean?"

"Oh, yes. Everything has gravity." Hinrik was leaning toward Aratap, his hands gripping each other nervously.

"That's good enough. Now naturally the massometer can only be used when the ship is close. Less than a million miles away or so. Also it has to be a reasonable distance from any planet, because if it isn't, all you can detect is the planet, which is much bigger."

"And has much more gravity."

"Exactly," said Aratap, and Hinrik looked pleased. "We Tyranni have another device. It is a transmitter which radiates through hyperspace in all directions, and what it radiates is a particular type of distortion of the space fabric which is not electromagnetic in character. In other words, it isn't like light or radio or even sub-etheric radio. Do you see?"

Hinrik didn't answer. He looked confused.

Aratap proceeded quickly. "Well,

it's different; it doesn't matter how. We can detect that something is radiated so that we can always know where any Tyrannian ship is, even if it's halfway across the Galaxy, or on the other side of a star."

Hinrik nodded solemnly, looking vaguely impressed.

"Now," said Aratap, "if the young Widemos had escaped in an ordinary ship, it would have been very difficult to locate him. As it is, since he took a Tyrannian cruiser, we know where he is at all times, although he doesn't realize that. That is how we know he is near Lingane, you see. And what's more, he can't get away, so that we will certainly rescue your daughter."

HINRIK smiled. "Why, that is wonderful, Commissioner. A very clever ruse."

Aratap did not delude himself. Hinrik understood very little of what he had said, but that did not matter. It had ended with the assurance of his daughter's rescue, and somewhere in Hinrik's dim understanding there must be the realization that this, somehow, was made possible by Tyranni science.

He told himself that he had not gone to this trouble entirely because the Rhodian appealed to his sense of the pathetic. He had to keep the man from breaking down altogether for obvious political reasons. Perhaps the return of his daughter would improve matters. He hoped so.

There was a sharp door signal again and this time it was Major Andros who entered. Hinrik's arm stiffened on the arm-rest of his chair and his face assumed a hunted expression. He lifted himself and began, "Major Andros—"

But Andros was already speaking quickly, disregarding the Rhodian. "Commissioner, the *Remorseless* has changed position."

"Surely he has not landed on Lingane," said Aratap, sharply.

"No," said the Major. "He has Jumped away from Lingane."

"Good. He has been joined by another ship, perhaps?"

"By many ships, perhaps. We can detect only his, as you are quite aware."

"In any case, we follow again."

"The order has already been given. I would merely like to point out that his Jump has taken him to the edge of the Horsehead Nebula."

"What?"

"No major planetary system exists in the indicated direction. There is only one logical conclusion."

Aratap moistened his lips and left hurriedly for the pilot room, the Major with him.

Hinrik remained standing in the middle of the suddenly empty room, looking at the door for a minute or so. Then, with a little shrug of the shoulders, he sat down again. His expression was blank. For a long while, he simply sat.

THE navigator said, "The space coordinates of the *Remorseless* have been checked, sir. They are definitely inside the Nebula."

"That doesn't matter," said Aratap. "Follow them anyway." He turned to Major Andros. "So you see the virtues of waiting. There is a good deal that is obvious now. Where else could the conspirator's headquarters be but in the Nebula itself? Where else could we have failed to locate them? A *very* pretty pattern."

And so the squadron entered the Nebula.

For the twentieth time, Aratap glanced automatically at the visiplate. Actually, the glances were useless since the visiplate remained quite black. There was no star in sight.

Andros said, "That's their third stop without landing. I don't understand it. What is their purpose? What are they after? Each stop of theirs is several days long. Yet they do not land."

"It may take them so long," said Aratap, "to calculate their next Jump. Visibility is non-existent."

"You think so?"

"No. Their Jumps are too good. Each time they land very near a star. They couldn't do as well by massometer data alone, unless they actually knew the locations of the stars in advance."

"Then why don't they land?"

"I think," said Aratap, "they must be looking for habitable plan-

ets. Maybe they, themselves, do not know the location of the center of conspiracy. Or, at least, not entirely." He smiled. "We need only follow."

THE navigator clicked heels.
"Sir!"

"Yes?" Aratap looked up.

"The enemy has landed on a planet."

Aratap signaled for Major Andros.

"Andros," said Aratap, as the Major entered, "have you been told?"

"Yes. I've ordered a descent and pursuit."

"Wait. You may be again premature, as when you wanted a lunge toward Lingane. I think only this ship ought to go."

"Your reasoning?"

"If we need reinforcements, you will be there, in command of the cruisers. If it is indeed a powerful rebel center, they may think only one ship has stumbled upon them. I will get word to you somehow and you can retire to Tyrann."

"Retire!"

"And return with a full fleet."

Andros considered. "Very well. This is our least useful ship in any case. Too large."

The planet filled the visiplate as they spiraled down.

"The surface seems quite barren, sir," said the navigator.

"Have you determined the exact location of the *Remorseless*?"

"Yes, sir."

"Then land as closely as you can without being sighted."

They were entering the atmosphere now. The sky, as they flashed along the day-half of the planet, was tinged with a brightening purple. Aratap watched the nearing surface. The long chase was almost over!

CHAPTER XVII

And Hares!

TO THOSE who have not actually been in space, the investigation of a stellar system and the search for habitable planets may seem rather exciting; at the least, interesting. To the spaceman, it is the most boring of jobs.

The location of a star, which is a huge glowing mass of hydrogen fusing into helium, is almost unavoidable. It advertises itself. Even in the blackness of the Nebula, it is only a question of distance. Approach within five billion miles and it will still advertise itself.

But a planet, a relatively small mass of rock, shining only by reflected light, is another matter. One could pass through a stellar system a hundred thousand times at all sorts of odd angles without ever coming close enough to a planet to see it for what it is, barring the oddest of coincidences.

Hence, one adopts a system. A position is taken up in space, at a

distance from the star being investigated, of some ten thousand times the star's diameter. From Galactic statistics it is known that not one time in fifty thousand is a planet located farther from its primary than that. Furthermore, practically never is a *habitable* planet removed from its primary more than one thousand times its sun's diameter.

This means that from the position in space assumed by the ship, any habitable planet must be located within six degrees of the star. This, represents an area only 1/3600th of the entire sky. That area can be handled in detail with relatively few observations.

The movement of the tele-camera can be so adjusted as to counteract the motion of the ship in its orbit. Under those conditions, a time exposure will pinpoint the constellations in the star's neighborhood; provided, of course, that the blaze of the sun itself is blocked out, which is easily done. Planets, however, will have perceptible proper motions and therefore show up as tiny streaks on the film.

When no streaks appear, there is always the possibility that the planets are behind their primary. The maneuver is therefore repeated from another position in space and, usually, at a point closer to the star.

It is a very dull procedure indeed, and when it has been repeated three times for three different stars, each time with completely negative results, a certain

depression of morale is bound to occur.

GILLBRET'S morale, for instance, had been suffering for quite a while. Longer and longer intervals took place between the moments when he found something "amusing."

They were readying for the Jump to the fourth star on the Autarch's list, and Biron said, "We hit a star each time, anyway. At least, Jonti's figures are correct."

Gillbret said, "Statistics show that one out of three stars have planetary systems."

Biron nodded. It was a well-worn statistic. Every child was taught that in elementary Galactography.

Gillbret went on, "That means that the chances of finding three stars at random without a single planet—without one single planet—is two-thirds cubed, which is eight twenty-sevenths, or less than one in three."

"So?"

"And we haven't found any. There must be a mistake."

"You saw the plates yourself. And besides, what price statistics? For all we know, conditions are different inside a Nebula. Maybe the particle-fog prevents planets from forming, or maybe the fog is the result of planets that didn't coalesce."

"You mean that?" said Gillbret, stricken.

"You're right. I'm just talking to hear myself. I don't know anything about cosmogony. Why the hell are planets formed anyway? Never heard of one that wasn't filled with trouble." Biron looked haggard himself. He was still printing and pasting up little stickers on the control panels.

He said, "Anyway, we've got the blasters all worked out; range-finders, power-control, all that."

It was very difficult not to look at the visiplate. They'd be Jumping again soon, through that ink.

Biron said, absently, "You know why they call it the Horsehead Nebula, Gil?"

"The first man to enter it was Horace Hedd. Are you going to tell me that's wrong?"

"It may be. They have a different explanation on Earth."

"Oh?"

"They claim it's called that because it looks like a horse's head."

"What's a horse?"

"It's an extinct animal on Earth."

"It's an amusing thought, but the Nebula doesn't look like any animal to me, Biron."

"It depends on the angle you look at it. Now from Nephelos, it looks like a man's arm with three fingers, but I looked at it once from the observatory at the University of Earth. It *does* look a little like some creature's head. Maybe that is how the name started. Maybe there never was any Hotace Hedd. Who

knows?" Biron felt bored with the matter, already. He was still talking simply to hear himself talk.

THREE was a pause; that lasted too long, because it gave Gillbret a chance to bring up a subject which Biron did not wish to discuss and could not force himself to stop thinking about.

Gillbret said, "Where's Arta?"

Biron looked at him quickly, and said, "Somewhere in the trailer. I don't follow her about."

"The Autarch does. He might as well be living here."

"Lucky for her."

Gillbret's wrinkles became more pronounced and his small features seemed to screw together. "Oh, don't be a fool, Biron. Artemisia is a Hinriad. She can't take what you've been giving her."

Biron said, "Drop it."

"I won't. I've been spoiling to say this. Why are you doing this to her? Because Hinrik might have been responsible for your father's death? Hinrik is my cousin! You haven't changed toward me."

"All right," Biron said, "I haven't changed toward you. I speak to you as I always have. I speak to Artemisia as well."

"As you always have?"

Biron was silent.

Gillbret said, "You're throwing her at the Autarch."

"It's her choice."

"It isn't. It's your choice. Listen, Biron." Gillbret put a hand on

Biron's knee. "This isn't a thing I like to interfere with, you understand. It's just that she's the only good thing in the Hinriad family just now. Would you be amused if I said I loved her? I have no children of my own."

"I don't question your love."

"Then I advise you for her good. Stop the Autarch, Biron."

"I thought you trusted him."

"As the Autarch, yes. As an anti-Tyranni leader, yes. But as a man for a woman, as a man for Artemisia, no."

"Tell her that."

"She wouldn't listen."

"Do you think she would if I told her?"

"If you told her properly."

For a moment, Biron seemed to hesitate, his tongue dabbing slightly at dry lips. Then he turned away, saying harshly, "I don't want to talk about it."

Gillbret said, sadly, "You'll regret this."

Biron said nothing. Why didn't Gillbret leave him alone? It had occurred to him many times that he might regret all this. But what could he do? There was no easy way of backing out.

BIRON had set the controls in accordance with the instructions from the Autarch's pilot, and left the manuals to Gillbret. He was going to sleep through this Jump. And then Gillbret was shaking his shoulder.

"Biron! Biron!"

Biron rolled over in his bunk, and out, landing in a crouch, fists balled. "What is it?"

Gillbret stepped back hastily. "Now, take it easy. We've got an F-2 this time."

It sank in. Biron drew a deep breath, and relaxed. "Don't ever wake me that way, Gillbret. An F-2, you say? I suppose you're referring to the new star."

"I surely am. It looks most amusing, I think."

In a way, it did. Approximately 95% of habitable planets in the Galaxy circled stars of spectral types F or G; diameter from 750 to 1500 thousand miles, surface temperature from five to ten thousand centigrade. Earth's sun was G-0, Rhodia's F-8, Lingane's G-2, as was that of Nephelos. F-2 was a little warm, but not too warm.

The first three stars they had stopped at were of spectral type K, rather small and ruddy. Planets would probably not have been noteworthy even if they had had any.

A good star is a good star! In the first day of photography, five planets were located, the nearest being one hundred fifty millions of miles from the primary.

Tedor Rizzett brought the news personally. He visited the *Remorseless* as frequently as the Autarch, lighting the ship with his heartiness. He was whoofing and panting this time from the hand-over-hand exercise along the metal line.

He said, "I don't know how the Autarch does it. He never seems to mind. Comes from being younger, I guess." He added, abruptly, "Five planets!"

Gillbret said, "For this star? You're sure?"

"It's definite. Four of them are J-type, though."

"And the fifth?"

"The fifth may be all right. Oxygen in the atmosphere, anyway."

GILLBRET set up a thin yell of triumph, but Biron said, "Four are J-type. Oh, well, we only need one."

He realized it was a reasonable distribution. The large majority of sizable planets in the Galaxy possessed hydrogenated atmospheres. After all, stars are mostly hydrogen and they are the source material of planetary building blocks. J-type planets had atmospheres of methane or ammonia with molecular hydrogen in addition sometimes, also considerable helium. Such atmospheres were usually deep and extremely dense. The planets themselves were almost invariably thirty thousand miles in diameter and up, with a mean temperature of rarely more than fifty below zero, centigrade. They were quite uninhabitable.

Back on Earth, they used to tell him that these planets were called J-type because the J stood for Jupiter, the planet in Earth's solar system which was the best example of

the type. Maybe they were right. Certainly, the other planet-classification was the E-type, and E did stand for Earth. E-types were usually small, comparatively, and their weaker gravity could not retain hydrogen or the hydrogen-containing gases, particularly since they were usually closer to the sun and warmer. Their atmospheres were thin and contained oxygen and nitrogen usually, with, occasionally, an admixture of chlorine.

"How well have they gone over the atmosphere?" asked Biron.

Rizzett shrugged, "We can only judge the upper reaches from out in space. If there were any chlorine, it would concentrate toward ground-level. We'll see."

He clapped a hand on Biron's large shoulder. "How about inviting me to a small drink in your room, boy?"

Gillbret looked after them uneasily. With the Autarch courting Artemisia, and his right-hand man becoming a drinking companion of Biron's, the *Remorseless* was becoming more Linganian than not. He wondered if Biron knew what he was doing, then thought of the new planet and let the rest go.

ARTEMISIA was in the pilot room when they penetrated the atmosphere. There was a little smile on her face and she seemed quite contented. Biron looked in her direction occasionally. He had said, "Good day, Artemisia," when

she came in—she hardly ever did come in; he had been caught by surprise—but she hadn't answered.

She had merely said, "Uncle Gil," very brightly; then, "Is it true we're landing?"

Gil had rubbed his hands. "It seems so, my dear. We may be getting out of the ship in a few hours, walking on solid surface. How's that for an amusing thought?"

"I hope it's the right planet. If it isn't, it won't be so amusing."

"There's still another star," said Gil, but his brow furrowed.

And then Artemisia turned to Biron and said, frigidly, "Did you speak, Mr. Farrill?"

Biron, caught by surprise again, started and said, "No, not really."

"I beg your pardon, then. I thought you had."

She passed by him so closely that the plastic flair of her dress brushed his knee and her perfume, momentarily, surrounded him.

Rizzett was still with them; one of the advantages of the trailer was that they could put a guest up overnight. He said, "They're getting details on the atmosphere now. Lots of oxygen, almost 30%, and nitrogen and inert gases. It's quite normal. No chlorine." Then he stopped and went "Hmm."

Gillbret said, "What's the matter?"

"No carbon dioxide. That's not so good."

"Why not?" demanded Artemisia from her vantage-point near

the visiplate, where she watched the distant surface of the planet blur past at two thousand miles an hour.

Biron said, curtly, "No carbon dioxide, no plant life."

"Oh?" She looked at him, and smiled warmly.

Biron, against his will, smiled back, and somehow, with scarcely a visible change in her countenance, she was smiling through him, past him, obviously unaware of his existence; and he was left there, caught in a foolish smile. He let it fade.

It was just as well he avoided her. Certainly, when he was with her, he couldn't keep it up. When he could actually see her, the anesthetic of his will didn't work. It began hurting.

GILLBRET was doleful. They were coasting now. In the thick lower reaches of the atmosphere, the *Remorseless* with its aerodynamically undesirable addition of a trailer was difficult to handle.

Biron fought the bucking controls stubbornly.

He said, "Cheer up, Gil!"

He felt not exactly jubilant himself. Radio signals had brought no response as yet, and if this were *not* the "rebellion world," there would be no point in waiting longer. His line of action was set.

Gillbret said, "It's rocky and dead, and not much water, either."

He turned. "Did they try for carbon dioxide again, Rizzett?"

Rizzett's ruddy face was long. "Yes. Just a trace. About a thousandth of a per cent or so."

Biron said, "You can't tell. They might pick a world like this, just because it would look so hopeless."

"But I saw farms," said Gillbret.

"How much do you suppose we can see of a planet this size by circling it a few times? You know damn well, Gil, that whoever they are, they can't have enough people to fill a whole planet. They may have picked themselves a valley somewhere where the carbon dioxide of the air has been built up, say, by volcanic action and where there's plenty of nearby water. We could whizz within twenty miles of them, and never know it. Naturally, they wouldn't be ready to answer radio calls without considerable investigation."

"You can't build up a concentration of carbon dioxide that easily," muttered Gillbret. But he watched the visiplate intently.

Biron suddenly hoped that it *was* the wrong world. He decided that he could wait no longer. It would have to be settled, *now!*

IT WAS a queer feeling.

The artificial lights had been turned off and sunlight was coming in unhindered at the ports. Actually, it was the less efficient method of lighting the ship, but there was a sudden desirable novelty to it.

The ports were open, in fact, and the native atmosphere could be breathed.

Rizzett advised against it on the grounds that lack of carbon dioxide would upset the respiratory regulation of the body, but Biron thought it might be bearable for a short time.

Gillbret had come upon them, heads together. They looked up, and leaned away from one another.

Gillbret laughed. Then he looked out of the open port, sighed, and said, "Rocks!"

Biron said, mildly, "We're going to set up a radio transmitter at the top of the high ground. We'll get more range that way. We ought to be able to contact all of this hemisphere at any rate. And if it's negative, we can try the other side of the planet."

"Is that what you and Rizzett were discussing?"

"Exactly. The Autarch and I will do the job. It's his suggestion, which is fortunate, since otherwise I would have had to make the same suggestion myself." He looked fleetingly at Rizzett as he spoke. Rizzett was expressionless.

Biron stood up. "I think it would be best if I unzipped my space-suit lining and wore that."

Rizzett was in agreement. It was sunny on this planet; little water vapor in the air, no clouds; but it was briskly cold.

The Autarch was at the main lock of the *Remorseless*. His over-

coat was of thin foamite that weighed a fraction of an ounce, yet did a near-perfect job of insulation. A small carbon dioxide cylinder was strapped to his chest, adjusted to a slow leak that would maintain a perceptible CO₂ vapor tension in his immediate vicinity.

He said, "Would you care to search me, Farrill?" He raised his hands and waited, his lean face quietly amused.

"No," said Biron. "Do you want to check *me* for weapons?"

"I wouldn't think of it."

The courtesies were as frigid as the weather.

BIRON stepped out into the sun-light and tugged at his handle of the two-handled suitcase in which the radio equipment was stowed. The Autarch caught the other.

"Not too heavy," said Biron. He turned, and Artemisia was standing just within the ship, silent.

Her dress was a smooth, unfigured white which folded in a smooth drape that fled before the wind. The semi-transparent sleeves whipped back against her arms, turning them to silver.

For a moment, Biron melted dangerously. He wanted to return quickly; to run, leap into the ship, grasp her so that his fingers would leave bruises on her shoulders; feel his lips meet hers—

But he nodded briefly instead; her returning smile and the light

flutter of her fingers were for the Autarch.

Five minutes later he turned and there was still that glimmer of white at the open door, and then the rise in the ground cut off the view of the ship. The horizon was free of anything but broken and bare rock now.

Biron thought of what lay ahead, and wondered if he would ever see Artemisia again—and if she would care if he never returned.

CHAPTER XVIII

Out of the Jaws

ARTEMISIA watched them as they became tiny figures trudging up the bare granite, then dipping below and out of sight. For a moment, just before they disappeared, one of them had turned. She couldn't be sure which one, and, for a moment, her heart hardened.

She said, peevishly, "Uncle Gil, why don't you close the ports? It's enough to freeze a person to death." The thermometer dial read plus seven Centigrade with the ship's heaters on high.

"My dear Arta," said Gillbret, mildly, "if you will persist in your ridiculous habit of wearing nothing but a little fog here and there, you must expect to be cold." But he closed contacts, and, with little clicks, the airlock slid shut, the ports swung inward and molded themselves into the smooth, gleam-

ing hull. As they did so, the thick glass polarized and became non-transparent. The lights of the ship went on and the shadows disappeared.

Artemisia sat down in the heavily padded pilot's seat and fingered the arms aimlessly. *His* hands had often rested there and the slight warmth that flooded her as she thought that—she told herself—was only the result of the heaters making themselves felt decently, now that the outer winds were excluded.

The long minutes passed, and it became impossible to sit quietly. She might have gone with him! She corrected the rebellious thought instantly to the plural "them."

She said, "Why do they have to set up a radio transmitter anyway, Uncle Gil?"

He looked up from the visiplate, the controls of which he was finger-ing delicately, and said, "Eh?"

"We've been trying to contact them from out in space," she said, "and we haven't reached anyone. What special good would a trans-mitter on the planet's surface do?"

Gillbret was troubled. "Why, we must keep trying, my dear. We must find the 'rebellion world'." And, between his teeth, he added to himself, "We must!" A moment passed, and he said, "I can't find them."

"Find whom?"

"Biron and the Autarch. The ridge cuts me off no matter how I arrange the external mirrors. See?"

She saw nothing but the sunny rock flashing past.

Then Gillbret brought the little gears to rest and said, "Anyway, that's the Autarch's ship."

Artemisia accorded it the briefest of glances. It lay deeper in the valley, perhaps a mile away. It glistened unbearably in the sun. It seemed to her, at the moment, to be the real enemy. *It* was, not the Tyranni. She wished suddenly, sharply, and very strongly that they had never gone to Lingane; that they had remained in space, the three of them only. Those had been funny days; so uncomfortable and yet so warm, somehow. And now she could only try to hurt him. Something *made* her hurt him, though she would have liked—

Gillbret said, "Now what does *he* want?"

ARTEMISIA looked up at him, seeing him through a watery mist, so that she had to blink rapidly to put him into normal focus. "Who?"

"Rizzett. I *think* that's Rizzett. But he's certainly not coming this way."

Artemisia was at the visiplate. "Make it larger," she ordered.

"At this short distance?" objected Gillbret. "You won't see anything. It will be impossible to keep it centered."

"Larger, Uncle Gil."

Muttering, he threw in the telescopic attachment and searched the

bloated nubbles of rock that resulted. They jumped faster than the eye could follow at the lightest touch on the controls. For one moment Rizzett, a large, hazy figure, flashed past, and in that moment his identity was unmistakable. Gillbret backtracked wildly, caught him again, hung on for a moment, and Artemisia said, "He's armed. Did you see that?"

"No."

"He's got a long-range blasting rifle."

She was up, tearing at the locker. "Arta! What are you doing?"

She was unzipping the lining from another spacesuit. "I'm going out there. Rizzett's following them. Don't you understand? The Autarch hasn't gone out to set up a radio. It's a trap for Biron." She was gasping as she forced herself into the thick, coarse lining.

"Stop it! You're imagining things."

But she was staring at Gillbret without seeing him, her face pinched and white. She should have realized it before; the way Rizzett had been coddling that fool. That emotional fool! Rizzett had praised his father; told him what a great man the Rancher of Widemos had been and Biron had melted immediately. His every action was dictated by the thought of his father. How could a man let himself be ruled by a monomania?

She said, "I don't know what controls the airlock. Open it."

"Arta, you're not leaving the ship. You don't know where they are."

"I'll find them. Open the airlock." Gillbret shook his head. But the spacesuit she had stripped had borne a holster. She said, "Uncle Gil, I'll use this. I swear I will."

Gillbret found himself staring at the wicked muzzle of a neuronic whip. He forced a smile. "Don't now!"

"Open the lock!"

He did and she was out, running into the wind, slipping across the rocks and up the ridge. The blood pounded in her ears. She had been as bad as Biron, dangling the Autarch before him for no other purpose than her silly pride. The Autarch's personality sharpened in her mind; a man so studiously cold as to be bloodless and tasteless. She quivered with repulsion.

She had topped the ridge, and there was nothing ahead of her. Stolidly, she walked onward, holding the neuronic whip before her.

BIRON and Autarch had not exchanged a word during their walk, and now they came to a halt where the ground leveled off. The rock was fissured by the action of sun and wind through the millenia. Ahead of them, there was an ancient fault, the farther lip of which had crumpled downward, leaving a sheer precipice of a hundred feet.

Biron approached cautiously and looked over it. It slanted outward

past the drop, the ground riddled with craggy boulders which, with time and infrequent rains, had scattered out as far as he could see.

"It looks," he said, "like a hopeless world, Jonti."

The Autarch displayed none of Biron's curiosity in his surroundings. He did not approach the drop. He said, "This is the place we found before landing. It's ideal for our purposes."

"It's ideal for your purposes, at least," thought Biron. He stepped away from the edge and sat down. He listened to the tiny hiss from his carbon dioxide cylinder, and waited a moment. Then he said, very quietly, "What will you tell them when you get back to your ship, Jonti? Or shall I guess?"

The Autarch paused in the act of opening the two-handled suitcase they had carried. He straightened and said, "What are you talking about?"

Biron felt the wind numb his face and rubbed his nose with his gloved hand. Yet he unbuttoned the foamite lining that wrapped him, so that it flapped wide as the gusts hit it. He said, "I'm talking about your purpose in coming here."

"I would like to set up the radio rather than waste my time discussing the matter, Farrill."

"You won't set up a radio. Why should you? We tried reaching them from space, without a response. There's no reason to expect more of a transmitter on the sur-

face. It's not a question of ionized radio-opaque layers in the upper atmosphere, either, because we tried the sub-ether as well and drew a blank. Nor are we particularly the radio experts in our party. So why did you really come up here, Jonti?"

The Autarch sat down opposite Biron. His hand patted the suitcase idly. "If you are troubled by these doubts, why did *you* come?"

"To find out. Your man, Rizzett, told me you were planning this trip, and advised me to join you. I believe that your instructions to him were to tell me that, by joining you, I might make certain you received no messages that I remained unaware of. It was a reasonable point, except that I don't think you will receive any messages. But I allowed it to persuade me, and I've come with you."

"To find my motive?" said Jonti, mockingly.

"Exactly. I can guess already."

"Tell me then. Let me learn my motive, too."

"You came to kill me. I am here alone with you, and there is a cliff before us over which it would be certain death to fall. There would be no signs of deliberate violence. There would be no blasted limbs or any thought of weapon-play. It would make a nice, sad story to take back to your ship. I had slipped and fallen. You might even bring back a party to gather me up and give me a decent burial. It would

all be very touching and I would be out of your way."

"You believe this and yet you came."

"I expect it, so you won't catch me by surprise. We are unarmed and I doubt that you could force me over by muscle power alone."

JONTI laughed. "Shall we concern ourselves with our radio transmitter then, since your death is now impossible?"

"Not yet. I want your admission that you were going to try to kill me."

"Oh? Do you intend to beat a confession out of me? Now understand, Farrill, you are a young man and I am disposed to make allowances because of that and because of the convenience of your name and rank. However, I must admit you have until now been more trouble than help to me."

"By keeping alive, despite you?"

"If you refer to the risks you ran on Rhodia, I have explained it. I will not explain it again."

Biron rose. "Your explanation was not accurate. It has a flaw in it which was obvious from the beginning."

"Really?"

"Really! Stand up and listen to me, or I'll drag you to your feet."

The Autarch's eyes narrowed to slits as he rose. "I would not advise you to attempt violence, youngster."

"Listen." Biron's voice was loud

and his cloak still bellied open in the breeze, disregarded. "You said that you sent me to a possible death on Rhodia only to implicate the Director in an anti-Tyranni plot."

"That remains true."

"That remains a lie. Your prime object was to have me killed. You informed the captain of the Rhodian ship of my identity at the very beginning. You had no real reason for believing that I would ever be allowed to reach Hinrik."

"If I had wanted to kill you, Farrill, I might have planted a real radiation bomb in your room on Earth."

"It would have been obviously more convenient to have the Tyranni maneuvered into doing the killing for you."

"I might have killed you in space when I first boarded the *Remorseless*."

"So you might. You came equipped with a blaster and you had it leveled at me at one point. You had expected me on board, but you hadn't told your crew that. When Rizzett called and saw me, it was no longer possible to blast me. You made a mistake then. You told me you *had* told your men I was probably on board, and a while later Rizzett told me you had not. Don't you brief your men concerning your exact lies as you tell them, Jonti?"

Jonti's face had been white in the cold, but it seemed to whiten further. "I should kill you now for

that, certainly. But what held back my trigger finger before Rizzett got on the visiplate and saw you?"

"Politics, Jonti. Artemisia oth Hinriad was aboard, and for the moment she was a more important object than myself. I'll give you credit for a quick change of plans. To have killed me in her presence would have ruined a bigger game."

"**I** HAD fallen in love so rapidly, then?"

"When the girl concerned is a Hinriad, why not? You lost no time. You tried first to have her transferred to your ship and when that failed, you told me that Hinrik had betrayed my father. So I lost her and left you the field undisputed. Now, I presume, she is no longer a factor. She is firmly on your side and you may proceed with your plan to kill me without losing the Hinriad succession."

Jonti sighed and said, "Farrill, it is cold and getting colder. I believe the sun is heading downward. You are unutterably foolish and you weary me. Before we end this nonsense, will you tell me why I should be in the least interested in killing you? That is, if your obvious paranoia needs any reason."

"There is the same reason that caused you to kill my father."

"*What?*"

"Did you think I believed you for an instant when you said Hinrik had been the traitor? He might have been, were it not for the fact

that his reputation as a wretched weakling is so well established. Do you suppose that my father was a complete fool? Could he possibly have mistaken Hinrik for anything but what he was? If he had not known his reputation, would not five minutes in Hinrik's presence have revealed him as a hopeless puppet? Would my father have babbled foolishly to Hinrik anything that might have been used to support a charge of treason against him? No, Jonti. The man who betrayed my father must have been one who was trusted by him."

Jonti took a step backward and kicked the suitcase aside. He poised himself to withstand a charge and said, "I see your vile implication. My only explanation for it is that you are psychotic."

Biron was trembling, and not with cold. "My father was popular with your men, Jonti. Too popular. An Autarch cannot allow a competitor in the business of ruling. You saw to it that he did not remain a competitor. And it was your next job to see to it that I did not remain alive either to replace or to avenge him." His voice raised to a shout, which whipped away on the cold air. "Isn't this true?"

"No!" Jonti bent to the suitcase. "I can prove you are wrong!" He flung it open. "Radio equipment. Inspect it carefully. Take a good look at it."

He tossed the items to the ground at Biron's feet. Biron stared

at them. "How does that prove anything?"

"It doesn't. But now take a good look at this." He had a blaster in his hand, and the coolness had left his voice. He said, "I am tired of you. But I won't have to be tired much longer."

BIRON said, tonelessly, "You hid a blaster in the suitcase with the equipment?"

"You honestly came here expecting to be thrown off a cliff and you thought I would try to do it with my hands as though I were a stevedore or a coal-miner. I am Autarch of Lingane."

His face worked and his left hand made a flat, cutting gesture before him. "I am tired of the fatuous idealism of the Ranchers of Widemos." He whispered, "Move on. Toward the cliff." He stepped forward.

Biron, hands raised, eyes on the blaster, stepped back. "You killed my father, then."

"I killed your father!" said the Autarch. "The same man who saw to it that your father was blasted to bits in a disintegration chamber will see to it that you follow him—and keep the Hinriad girl for himself thereafter, along with all that goes with her. I will give you an extra minute to think of that! But keep your hands steady, or I will blast you and risk any questions my men may care to ask." It was as though his cold veneer, having

cracked, left nothing but a burning passion exposed.

"You tried to kill me before this," Biron said stubbornly.

"I did. Your guesses were in every way correct. Does that help you now? Back."

"No," said Biron. He brought his hands down. "If you're going to shoot, do so."

The Autarch said, "You think I will not dare? You're calling my bluff?"

"I've asked you to shoot."

"And I will." The Autarch aimed deliberately at Biron's head at a distance of four feet.

CHAPTER XIX

Defeat!

TEDOR RIZZETT circled the little piece of tableland warily. He was not yet ready to be seen, but to remain hidden was difficult in this world of bare rock. In the patch of tumbled boulders he felt safer. He threaded his way through them. Occasionally, he paused to pass the soft back of the spongy gloves he wore over his face. The dry cold was deceptive.

He saw them now from between two granite monoliths that met in a V and rested his blaster in the crotch. The sun was on his back. He felt its feeble warmth soak through, and he was satisfied. If they happened to look in his direction, the sun would be in their eyes

and he himself would be that much less visible.

Their voices were sharp in his ear. Radio communication was in operation and he smiled at that. So far, according to plan. His own presence, of course, was not according to plan, but it would be better so. The plan was a rather overconfident one and the victim was not a complete fool, after all. Rizzett's own blaster might yet be needed to decide the issue.

He waited. Stolidly, he watched the Autarch lift his blaster as Biron stood there, unflinching.

A RTEMISIA did not see the blaster lift. She did not see the two figures on the flat rock surface. Five minutes earlier, she had seen Rizzett silhouetted for a moment against the sky and since then she had followed him.

He was moving too fast for her somehow. Things dimmed and wavered before her and twice she found herself stretched on the ground. She did not recall falling. The second time, she staggered to her feet with one wrist oozing blood where a sharp edge had scraped her.

Rizzett had gained again and she had to reel after him. When he vanished in the glistening boulder-forest, she sobbed in despair. She leaned against one of them, completely weary. Its beautiful flesh-pink tint, the glassy smoothness of its surface, the fact that it stood as an ancient reminder of a primeval



volcanic age were all lost upon her.

She could only try to fight the sensation of choking that pervaded her.

And then she saw him, dwarfed at the forked rock formation, his back to her. She held the neuronic whip before her as she ran unevenly over the hard ground. He was sighting along the barrel of his rifle, intent upon the process; taking aim; getting ready.

She wouldn't make it in time.

She would have to distract his attention. She called, "Rizzett!" And again, "Rizzett, don't shoot!"

She stumbled again. The sun was

blotting out, but consciousness lingered. It lingered long enough for her to feel the ground jar thuddingly against her; long enough to press her finger upon the whip's contact; and long enough for her to know that she was well out of range, even if her aim was accurate.

She felt arms about her, lifting. She tried to see, but her eyelids would not open.

"Biron?" It was a weak whisper.

The answer was a rough blur of words, but it was Rizzett's voice. She tried to speak further, then abruptly gave up. She had failed!

Everything was blotted out.

THE AUTARCH remained motionless for the space it would take a man to count to ten slowly. Biron faced him as motionlessly, watching the barrel of the blaster that had just been fired point-blank at him. The barrel sank slowly as he watched.

Biron said, "Your blaster seems not to be in firing order. Examine it."

The Autarch's bloodless face turned alternately to Biron and to his weapon. He had fired at a distance of four feet. It should have been all over. The congealed astonishment that held him broke suddenly and he disjointed the blaster in a quick movement.

The energy capsule was missing; where it should have been, there was a useless cavity. The Autarch with rage hurled the lump of dead metal aside. It turned over and over, a black blot against the sun, smashing into the rock with a ringing sound.

Biron took a slow step forward. "There are many ways I could kill you, but most of them are too quick. I think the most satisfying would be to let you fight for your life—knowing you can't win. Being a stevedore would be more helpful right now than being Autarch of Lingane."

His thigh muscles tensed, but the lunge they prepared was never completed.

The cry that interrupted was thin and high, packed with panic.

"Rizzett!" it came. "Rizzett, don't shoot!"

Biron whirled in time to see the motion behind the rocks a hundred yards away and the glint of sun off metal. And then the hurled weight of a human body was upon his back. He bent under it, dropping to his knees.

The Autarch had landed fairly, his knees clasped hard about Biron's waist, his fist thudding at the nape of the neck. Biron's breath whooshed out. He fought off the gathering blackness long enough to throw himself to one side. The Autarch jumped free, gaining clear footing while Biron sprawled on his back.

He had just time to double his legs up against himself as the Autarch lunged down upon him again. The Autarch bounced off. They were up together this time, perspiration turning icy upon their cheeks.

Slowly, they circled. Biron tossed his carbon dioxide cylinder to one side. The Autarch unstrapped his likewise, held it suspended a moment by its mesh-metal hose, then stepped in rapidly and swung it. Biron dropped, heard and felt it whistle above his head.

He was up again, leaping before the Autarch could regain his balance. One large fist clamped down on a wrist, while the other exploded in the Autarch's face. He let the Autarch drop and stepped back.

Biron said, "Stand up. I'll wait

for you with more of the same. There's no hurry."

The Autarch touched his gloved hand to his face, then stared sickly at the blood that smeared off upon it. His mouth twisted and his hand snaked out for the metal cylinder he had dropped. Biron's foot came heavily down upon it, and the Autarch yelled in agony.

Biron said, "You're too close to the edge of the cliff, Jonti. I'll throw you the other way now."

But Rizzett's voice rang out, "Wait!"

The Autarch screamed, "Shoot this man, Rizzett! His arms first, then his legs, and we'll leave him."

Rizzett brought his weapon up slowly against his shoulder.

Biron said, "Who saw to it that your own blaster was unloaded, Jonti?"

"What?" The Autarch stared blankly.

"It was not I who had access to your blaster, Jonti. Who did have? Who is pointing a blaster at you right now? Not at me, Jonti, but at *you*!"

The Autarch turned to Rizzett and screamed, "Traitor!"

Rizzett said, in a low voice, "Not I, sir. That man is the traitor who betrayed the loyal Rancher of Widemos to his death."

"That is not I," cried the Autarch. "If he has told you I have, he lies."

"It is you yourself who have told us. I not only emptied your wea-

pon; I also shorted your communicator switch so that every word you said today was received by myself and by every member of the crew. We all know what you are."

"I am your Autarch."

"And also the foulest traitor alive."

FOR a moment, the Autarch said nothing but looked from one to the other as they watched him with somber, angry faces. Then he wrenched to his feet, pulled together the parted seams of his self-control and held them tightly by sheer nervous force.

His voice was almost cool as he said, "And if it were all true, what would it matter? You have no choice but to let matters stand as they are. One last intra-nebular planet remains to be visited. It *must* be the 'Rebellion World' and only I know the co-ordinates."

He retained dignity somehow. One hand hung uselessly from a broken wrist; his upper lip had swollen ludicrously and blood was caking his cheek, but he radiated the hauteur of one born to rule.

"You'll tell us," said Biron.

"Don't delude yourself that I will under any circumstances. And I have warned you already that there is an average of seventy cubic light years per star. If you work by trial and error, without me, the odds are 250 quadrillion to one against your coming within a billion miles of any star. *Any star!*"

Something went *click* in Biron's mind. He said, "Take him back to the *Remorseless*!"

Rizzett said in a low voice, "The Lady Artemisia—"

And Biron interrupted. "Then it *was* she. Where is she?"

"She's safe. She came out without a carbon dioxide cylinder. Naturally as the CO₂ washed out of her blood stream, the automatic breathing mechanism of the body slowed. She was trying to run, didn't realize she had to breath voluntarily, and fainted."

Biron frowned. "Why was she trying to interfere with you, anyway? Making sure her boy-friend didn't get hurt?"

Rizzett said, "She thought I was the Autarch's man and was going to shoot *you*. I'll take back this rat now, and, Biron—"

"Yes?"

"Get back as soon as you can. He's still the Autarch, and the crew may need talking to. It's hard to break a lifetime habit of obedience. She's behind that rock. Get to her before she freezes to death, will you? She won't leave."

HER face was almost buried in the hood that covered her head, and her body was formless in the thick, enveloping folds of the spacesuit lining, but his steps quickened as he approached her.

He said, "How are you?"

She said, "Better, thank you. I am sorry if I caused any trouble."

They stood looking at each other, and the conversation seemed to have burned itself out in two lines.

Then Biron said, "I know we can't turn time backward, undo things that have been done, unsay things that have been said. But I do want you to understand."

"Why this stress on understanding?" Her eyes flashed. "I have done nothing but understand for weeks now. Will you tell me again about my father?"

"No. I knew your father was innocent. I suspected the Autarch almost from the start, but I had to find out definitely. I could only prove it, Arta, by forcing him to confess. I thought I could get him to confess by trapping him into attempting to kill me and there was only one way of doing that."

He felt wretched. He went on. "It was a rotten thing to do. As rotten, almost, as what he did to my father. I don't expect you to forgive me."

She said, "I don't understand a word you're saying."

"I knew he wanted you, Arta. Politically, you would be a perfect matrimonial object. The name of Hinriad would be more useful for his purposes than that of Widemos. So once he had you, he would need me no longer. I deliberately forced you on him, Arta. I acted as I did, hoping you would turn to him. When you did, he thought he was ready to rid himself of me, and Rizzett and I laid our trap."

"And you loved me all the time?"

Biron said, "Can't you bring yourself to believe that, Arta?"

"And, of course, you were ready to sacrifice your love to the memory of your father and the honor of your family. How does the old doggerel go? You could not love me half so much, loved you not honor more!"

Biron said, miserably, "Please, Arta! I am not proud of myself but I could think of no other way."

"You might have told me your plan, made me your confederate rather than your tool."

"It was not your fight. If I had failed—and I might have—you would have remained out of it. If the Autarch had killed me, and you were no longer on my side, you would be less hurt. You might have married him; even been happy."

"Since you have won, it might be that I would be hurt at *his* loss."

"But you aren't."

"How do you know?"

Biron said, desperately, "At least, try to see my motives. Granted that I was foolish, criminally foolish, can't you understand? Can't you try not to hate me?"

She said, softly, "I have tried not to love you and, as you see, I have failed."

"Then you forgive me," he said.

"Why? Because I understand?"

No! If it were a matter of simply understanding, of seeing your motives, I would not forgive you your

actions for anything I might have in life. If it were only that and nothing more! But I *will* forgive you, Biron, because I couldn't bear not to. How could I ask you to come back to me, unless I forgave you?"

And she was in his arms, her weather-cold lips turning up to his. The two were held apart by a double layer of thick garments. His gloved hands could not feel the body they embraced, but it didn't seem to lessen his ardor.

At last he said in concern, "The sun is going down. It's going to get colder."

But she said, softly, "It's strange then that I seem to be getting warmer."

Together they walked back to the ship.

BIRON faced the crew with an appearance of easy confidence which he did not feel. The Linganian ship was large, and there were fifty in the crew. They sat facing him. Fifty faces! Fifty Linganian faces bred to unquestioning obedience to their Autarch.

Some had been convinced by Rizzett; others had been convinced by the arranged eavesdropping on the Autarch's statements to Biron earlier that day. But how many others were still uncertain or even definitely hostile?

So far Biron's talking had done little good. He leaned forward, let his voice grow confidential. "And

what are you fighting for, men? What are you risking your lives for? A free Galaxy, I think. A Galaxy in which each world can decide what is best in its own way, produce its own wealth for its own good, be slave to none and master of none. Am I right?"

There was a low murmur of what might have been agreement, but it lacked enthusiasm.

Biron went on, "And what is the Autarch fighting for? For himself. He is the Autarch of Lingane. If he won, he would be Autarch of the Nebular Kingdoms. You would replace a Khan by an Autarch. Where would be the benefit of that? Is that worth dying for?"

One in the audience cried out, "He would be one of us, not a filthy Tyrannian."

Another shouted, "The Autarch was looking for the 'Rebellion World' to offer his services. Was that ambition?"

"Ambition should be made of sterner stuff, eh?" Biron shouted back, ironically. "But he would come to the 'Rebellion World' with an organization at his back. He could offer them all of Lingane; he could offer them, he thought, the prestige of an alliance with the Hinriads. In the end, he was pretty sure, the 'Rebellion World' would be his to do with what he pleased. Yes, that was ambition.

"And when the safety of the movement ran counter to his own plans, did he hesitate to risk your

lives for the sake of his ambition? My father was a danger to him. My father was honest and a friend of liberty. But he was too popular, so he was betrayed. In that betrayal, the Autarch might have brought to ruins the entire cause and all of you with it. Which one of you is safe under a man who will deal with the Tyranni whenever it suits his purposes? Who can be safe serving a cowardly traitor?"

"Better," whispered Rizzett. "Stick to that. Give it to them."

AGAIN the voice called from the back rows, "The Autarch knows where the 'Rebellion World' is. Do you know?"

"We will discuss that later. Meanwhile, consider instead that under the Autarch we were all headed for complete ruin; that there is still time to save ourselves by turning from his guidance to a better and nobler way; that it is still possible from the jaws of defeat to snatch—"

"Only defeat, my dear young man," came a soft, interrupting voice, and Biron turned in horror.

The fifty crew-men came babbling to their feet and, for a moment, it seemed as though they might surge forward, but they had come to council unarmed; Rizzett had seen to that. And now a squad of Tyranni guardsmen were filing through the various doors, weapons ready.

And Simok Aratap, himself, a

blaster in each hand, stood behind Biron and Rizzett.

CHAPTER XX

Where?

SIMOK ARATAP weighed carefully the personalities of each of the four who faced him and felt the stirring of a certain excitement within him. This would be the big gamble. The threads of the pattern were weaving toward a close. He was thankful that Major Andros was no longer with him; that the Tyranni cruisers had gone as well.

He was left with his flagship, his crew and himself. They would be sufficient. He hated any kind of unwieldiness.

He spoke mildly. "Let me bring you up to date, my Lady and gentlemen. The Autarch's ship has been boarded by a prize crew and is now being escorted back to Tyrann by Major Andros. The Autarch's men will be tried according to law and, if convicted, will receive the punishment for treason. They are routine conspirators and will be treated routinely. But what shall I do with you?"

Hinrik of Rhodia sat beside him, his face crumpled in utter misery. He said, "Consider that my daughter is a young girl. She was led into this unwittingly. Artemisia, tell them that you were—"

"Your daughter," interposed Aratap, "will probably be released.

She is, I believe, the matrimonial object of a highly placed Tyranni nobleman. Obviously, that will be kept in mind."

Artemisia said, "I'll marry him, if you let the rest go."

Biron half-rose, but Aratap waved him down. The Tyrannian Commissioner smiled and said, "My Lady, please! I can strike bargains, I admit. However, I am not the Khan, but merely one of his servants. Therefore, any bargain I do make will have to be justified thoroughly at home. So what is it exactly that you offer?"

"My agreement to the marriage."

"That is not yours to offer. Your father has already agreed and that is sufficient. Do you have anything else?"

Aratap was waiting for the slow erosion of their wills-to-resist. The fact that he did not enjoy his role did not prevent him from filling it efficiently. The girl, for instance, might at this moment burst into tears and that would have a salutary effect on the young man. They were obviously in love. He wondered if old Pohang would want her under the circumstances, and decided that he probably would. The bargain would still be all in the ancient's favor. For a moment, Aratap thought distantly that the girl was very attractive.

And she was maintaining equilibrium. She was not breaking down. Very good, thought Aratap. She was strong-willed as well. Po-

hang would not have joy of his bargain after all.

He said to Hinrik, "Do you wish to plead for your cousin, too?"

Hinrik's lips moved soundlessly.

Gillbret cried, "No one pleads for me. I don't want anything of any Tyrannian. Go ahead, order me shot."

"You are hysterical," said Aratap. "You know that I cannot order you shot without trial."

"He is my cousin," whispered Hinrik.

"That will be considered too. You noblemen will someday have to learn that you cannot presume too far on your usefulness to us. I wonder if your cousin has learned that lesson yet."

HE WAS satisfied with Gillbret's reactions. That fellow, at least, sincerely wanted death. The frustration of life was too much for him. Keep him alive, then, and that alone would break him.

He paused thoughtfully before Rizzett. This was one of the Autarch's men. The thought made him feel a faint embarrassment. At the start of the chase, he had dismissed the Autarch as a factor on the basis of what seemed iron logic. Well, it was healthy to miss occasionally. It kept self-confidence balanced at a point safely short of arrogance.

He said, "You're the fool who served a traitor. You would have been better off with us."

Rizzett flushed.

Aratap went on, "If you ever had any military reputation, I am afraid this would destroy it. You are not a nobleman and so considerations of state will play no part in your case. Your trial will be public and it will become known that you were a tool of a tool. Too bad."

Rizzett said, "But you were about to suggest a bargain, I suppose?" "A bargain?"

"Khan's evidence, for instance? You have only a shipload. Wouldn't you want to know the rest of the machinery of revolt?"

Aratap shook his head slightly. "No. We have the Autarch. He will do as a source of information. Even without it, we need only make war on Lingane. There would be little left of revolt thereafter, I'm sure. There will be no bargain of that sort."

And this brought him to the young man. Aratap had left him for last because he was the cleverest of the lot. But he was young, and young people were usually not dangerous. They lacked patience.

Biron spoke first, saying, "How did you follow us? Was *he* working with you?"

"The Autarch? Not in this case. The poor fellow was trying to play both sides of the game."

Hinrik interrupted, with an incongruously childish eagerness. "The Tyranni have an invention that follows ships through hyperspace."

Aratap turned sharply. "If your

Excellency will refrain from interrupting, I would be obliged." Hinrik cringed.

It really didn't matter. None of these four would be dangerous hereafter, but Aratap had no desire to decrease by even one any of the uncertainties in the young man's mind.

Biron said, "Now, look, let's have facts or nothing. You don't have us here because you love us. Why aren't we on the way back to Tyrann with the others? It's that you don't know how to go about killing us. Two of us are Hinriads. I am a Widemos. Rizzett is a well-known officer of the Linganian fleet. And that fifth one you have, your own pet coward and traitor, is still Autarch of Lingane. You can't kill any of us without stinking up the Kingdoms from Tyrann to the edge of the Nebula itself. You've got to try to make some sort of bargain with us because there's nothing else you can do."

Aratap said, "You are not altogether wrong. Let me weave a pattern for you. We followed you; how is not important. You may disregard, I think, the Director's overactive imagination. You paused near three stars without landing on any planet. You came to a fourth and found a planet to land on. There we landed with you, watched, waited. We thought there might be something to wait for and we were right. You quarreled with the Autarch and both of you broadcast without limitation. That had been

arranged by you for your own purposes, I know, but it suited our purpose as well. We overheard.

"The Autarch said that only one last intra-nebular planet remained to be visited and that it must be the 'Rebellion World.' This is interesting, you see. A 'Rebellion World.' You know, my curiosity is aroused. Where would that fifth and last planet be located?"

HE let the silence last. He took a seat and watched them dispassionately; first one, then another.

Biron said, "There is no 'Rebellion World.' "

"You were looking for nothing then?"

"We were looking for nothing."

"You are being ridiculous."

Biron shrugged wearily. "You are yourself ridiculous if you expect more of an answer."

Aratap said, "Observe that this 'Rebellion World' must be the center of the octopus of conspiracy. To find it is my only purpose in keeping you alive. You each have something to gain. My Lady, I might free you of your marriage. My Lord Gillbret, we might establish a laboratory for you; let you work undisturbed. Yes, we know more of you than you think." Aratap turned away hastily. The man's face was working. He might weep and that would be unpleasant. "Colonel Rizzett, you will be saved the humiliation of court-martial and the loss of reputation that would

go with it. You, Biron Farrill, would be Rancher of Widemos again. In your case, we might even reverse the conviction of your father."

"And bring him back to life?"

"And restore his honor."

"His honor," said Biron, "rests in the very actions that led to his conviction and death. It is beyond your power to add to or detract from it."

Aratap said, "One of you four will tell me where to find this world you seek. One of you will be sensible. He will gain, whichever one it is, what I have promised. The rest of you will be married, imprisoned, executed, whatever will be worst for you. I warn you, I can be sadistic if I must be." He waited a moment. "Which one will it be? If you don't speak, the one next to you will. You will have lost everything and I will still have the information I want."

Biron said, "It's no use. You're setting this up so carefully, and yet it won't help you. There is no 'Rebellion World.'"

"The Autarch says there is."

"Then ask the Autarch your question."

Aratap frowned. The young man was carrying the bluff past the point of reason.

He said, "My own inclination is to deal with one of you."

"Yet you have dealt with the Autarch in the past. Do so again. There is nothing you can sell to us

that we are willing to buy from you." Biron looked about him. "Right?"

Artemisia crept closer to him and her hand went slowly about his elbow. Rizzett nodded curtly and Gillbret muttered, "Right!" in a breathless manner.

"You have decided," said Aratap, and put his finger on the correct knob.

THE Autarch's right wrist was immobilized in a light metal sheath, which was held magnetically tight to the metal band about his abdomen. The left side of his face was swollen and blue with bruises except for a ragged, force-healed scar that seamed it redly. He stood before them without moving after that first wrench which had freed his good arm from the grip of the armed guard at his side.

"What do you want?" the Autarch demanded.

"I will tell you in a moment," said Aratap. "First, I want you to consider your audience. See whom we have here. There is the young man, for instance, whom you planned death for, yet who lived long enough to cripple you and destroy your plans, although you were an Autarch and he was an exile."

It was difficult to tell whether a flush had entered the Autarch's mangled face. There was no single muscle-motion upon it.

Aratap did not look for one. He

went on, quietly, almost indifferently. "This is Gillbret oth Hinriad, who saved the young man's life and brought him to you. This is the lady Artemisia, whom, I am told, you courted in your most charming manner and who betrayed you, nevertheless, for the love of the youngster. This is Colonel Rizzett, your most trusted military aide, who also ended by betraying you. What do you owe these people, Autarch?"

The Autarch said again, "What do you want?"

"Information. Give it to me and you will be Autarch again. Your earlier dealings with us would be held in your favor at the Khan's court. Otherwise—"

"Otherwise?"

"I will get it from these, you see. They will be saved and you will be executed. That is why I ask whether you owe them anything, that you should give them the opportunity of saving their lives by yourself being mistakenly stubborn."

The Autarch's face twisted painfully into a smile. "They cannot save their lives at my expense. They do not know the location of the world you seek. I do."

"I have not said what the information I want is, Autarch."

"There is only one thing you can want." His voice was hoarse, all but unrecognizable. "If my decision is to speak, then my Autarchy will be as before, you say."

"More closely guarded, of course," amended Aratap, politely.

Rizzett cried out, "Believe him, and you'll but add treason to treason and be killed for it in the end."

The guard stepped forward, but Biron anticipated him. He flung



himself upon Rizzett, struggling backward with him.

"Don't be a fool," he warned. "There's nothing you can do."

The Autarch said, "I don't care about my Autarchy, or myself, Rizzett." He turned to Aratap. "Will

these be killed? That, at least, you must promise." His horribly discolored face twisted savagely. "That one, above all." His finger stabbed toward Biron.

"If that is your price, it is met."

"If I could be his executioner, I



would relieve you of all further obligation to me. If my finger could control the execution-blast, it would be partial repayment. But if not that, at least I will tell you what he would have you not know. I give you rho, theta, and phi in parsecs and radians: 7352.43, 1.7836, 5.2112. Those three points will determine the position of the world you seek. You have them now."

"So I have," said Aratap, writing them down.

And Rizzett broke away. "Traitor!"

Biron, caught off-balance, lost his grip on the Linganian and was thrown to one knee. "Rizzett," he yelled, futilely.

Rizzett, face distorted, struggled briefly with the guard. Other guards were swarming in, but Rizzett had the blaster now. With hands and knees, he struggled against the Tyrranni soldiers. Hurling himself through the huddle of bodies, Biron joined the fight. He caught Rizzett's throat, choking, pulling back.

"Traitor," Rizzett gasped, struggling to maintain aim as the Autarch tried desperately to squirm aside. He fired. And then they disarmed him and threw him on his back.

BUT the Autarch's right shoulder and half his chest had been blasted away. Grotesquely, the forearm dangled freely from its magnetized sheath. Fingers, wrist and elbow ended in black ruin. For a

long moment, it seemed that the Autarch's eyes flickered as his body remained in crazy balance, and then they were glazed and he dropped and was a charred remnant upon the floor.

Artemisia buried her face against Biron's chest. Biron forced himself to look once, firmly and without flinching, at the body of his father's murderer, then turned his eyes away. Hinrik, from a distant corner of the room, mumbled and giggled to himself.

Only Aratap was calm. He said, "Remove the body."

They did so, flaring the floor with a soft heat-ray for a few moments to remove the blood. Only a few scattered char-marks were left.

The guards helped Rizzett to his feet. He brushed at himself with both hands, then whirled fiercely toward Biron, "'What were *you* doing? I almost missed the bastard."

Biron said, wearily, "You fell into Aratap's trap, Rizzett."

"Trap? I killed the traitor, didn't I?"

"That was the trap. You did Aratap a favor."

Rizzett made no answer, and Aratap did not interfere. He listened with a certain pleasure. The young fellow's mind worked smoothly.

Biron said, "If Aratap overheard what he claimed to have overheard, he would have known that only Jonti had the information he wanted. Jonti said that, with em-

phasis, when he faced us after the fight. It was obvious that Aratap was questioning us only to rattle us, to get us to act brainlessly at the proper time. I was ready for the irrational impulse he counted upon. You were not."

"I had thought," interposed Aratap softly, "that you would have done the job."

"I," said Biron, "would have aimed at you." He turned to Rizzett again. "Don't you see that he didn't want the Autarch alive? The Tyranni are snakes. He wanted the Autarch's information; he didn't want to pay for it; he couldn't risk killing him. You very obligingly did it for him."

"Correct," said Aratap, "and I have my information."

Somewhere there was the sudden clamor of bells.

Rizzett began, "All right. If I did him a favor, I did myself one at the same time."

"Not quite," said the Commissioner, "since our young friend has not carried the analysis far enough. You see, a new crime has been committed. Where the only crime is treason against Tyrann, your disposal would be a delicate matter politically. But now that you have murdered the Autarch of Lingane, you may be tried, convicted, and executed by Linganian law and Tyrann need play no part in it. This will be convenient for—"

And then he frowned and interrupted himself. He heard the clang-

ing, stepped to the door and kicked the release.

"What is happening?"

A soldier saluted. "General alarm, sir. Storage compartments."

"Fire?"

"It is not yet known, sir."

Aratap thought to himself, "Great Galaxy!" and stepped back into the room. "Where is Gill-bret?"

It was the first anyone knew of his absence.

THEY found him in the engine room, cowering amid the giant structures, and half-dragged, half-carried him back to the Commissioner's room.

The Commissioner said, dryly. "There is no escape on a ship, my Lord. It did you no good to sound the general alarm. The time of confusion is bound to be limited."

He went on, "I think it is enough. We have kept the cruiser you stole, Farrill, my own cruiser, on board ship. It will be used to explore the 'Rebellion World.' We will make for the lamented Autarch's reference points as soon as the Jump can be calculated. This will be an adventure of a sort usually missing in this comfortable generation of ours."

There was the sudden thought in his mind of his father in command of a squadron, conquering worlds. He was glad Andros was gone. This adventure would be his alone.

THEY were separated after that. Artemisia was placed with her father, and Rizzett and Biron were marched off in opposite directions.

Gillbret struggled and screamed. "I won't be left alone. I won't be in solitary."

Aratap sighed. This man's grandfather had been a great ruler, the history books said. It was degrading to have to watch such a scene. He said, with distaste, "Put my Lord with one of the others."

And so Gillbret was put with Biron. There was no speech between them till the coming of spaceship "night" when the lights turned a dim purple. It was bright enough to allow them to be watched through the televiwing system by the guards, shift and shift about, yet dim enough to allow sleep.

But Gillbret did not sleep. "Biron," he whispered. "Biron."

Biron, roused from a dull semidrowsiness, said, "What do you want?"

"Biron, I have done it. It is all right, Biron."

Biron said, "Try to sleep, Gil."

But Gillbret insisted. "But I've done it, Biron. Aratap may be smart, but I'm smarter. Isn't that amusing? You don't have to worry, Biron. Biron, don't worry. I've fixed it."

He was shaking Biron again, feverishly.

Biron sat up. "What's the matter with you?"

"Nothing. Absolutely nothing. It's all right. But I was the one

who fixed it." Gillbret was smiling. It was a sly smile, the smile of a little boy who had done something clever.

"What have you fixed?" Biron was on his feet. He seized the other by the shoulders and dragged him upright. "Answer me!"

"They found me in the engine room." The words were jerked out. "They thought I was hiding. I wasn't. I sounded the general alarm for the storage room, because I had to be alone, but for just a few minutes. I shorted the hyperatomics."

"You *what*?"

"It was easy. It took a minute. And they won't know. I did it cleverly. They won't know until they try to Jump, and then all the fuel will be energy in one chain reaction and the ship and us and Aratap and all knowledge of the 'Rebellion World' will be a thin expansion of iron vapor."

Biron was backing away, eyes wide. "You did that?"

"Yes." Gillbret buried his head in his hands and rocked to and fro. "We'll be dead, Biron. I'm not afraid to die, but not alone. I had to be with someone. I'm glad I'm with you. I want to be with someone when I die. But it won't hurt; it will be so quick."

Biron said, "You're mad. We might still have won out!"

Gillbret didn't hear him. His ears were filled with his own moans.

Biron could only dash to the door. "Guard," he yelled. "Guard!"

Were there hours or merely minutes left?

CHAPTER XXI

Here?

THE soldier came clattering down the corridor. "Get back in there!" His voice was sharp.

They stood facing one another. There were no doors to the small bottom-level rooms which doubled as prison cells, but a force-field stretched from side to side, top to bottom. Biron could feel it with his hand. There was a resilience to it, like rubber stretched nearly to its extreme, and then it stopped giving as though the first initial pressure turned it to steel.

It tingled Biron's hand, and he knew that though it would stop matter completely, it would be as transparent as space to the energy beam of a neuronic whip. And there was a whip in the guard's hand.

Biron said, "I've got to see Commissioner Aratap."

"Is that what you're making a noise about?" The guard was not in the best of humor; the night watch was unpopular and he was losing at cards. "I'll mention it after lights-on."

"It won't wait." Biron felt desperate. "It's important."

"It will have to wait. Will you get back, or do you want a bit of the whip?"

"Look," said Biron, "the man

with me is Gillbret oth Hinriad. He is sick. He may be dying. If a Hinriad dies on a Tyrannian ship because you will not let me speak to the man in authority, you will not have a good time of it."

"What's wrong with him?"

"I don't know. Will you be quick or are you tired of life?"

The guard mumbled something and went off.

Biron watched him as far as he could see in the dim purple. He strained his ears in an attempt to catch the heightened throbbing of the engines as energy concentration climbed to a pre-Jump peak, but he heard nothing at all.

He strode to Gillbret, seized the man's hair and pulled the head back gently. Eyes stared into his own out of a contorted face. There was no recognition in them; only fear.

"Who are you?"

"It's only me, Biron. How do you feel?"

It took time for the words to penetrate. Gillbret said, blankly, "Biron?" Then, with a quiver of life, "Biron! Are they Jumping? Death won't hurt, Biron."

Biron let the head drop. No point in anger against Gillbret. But he was writhing in frustration. Why wouldn't they let him speak to Aratap? Why wouldn't they let him out? He found himself at a wall and beat upon it with his fists. If there were a door, he could break it down; if there were bars, he could pull them apart, or drag them out

of their sockets, by the Galaxy.

But there was a force-field which nothing could damage. He would yell again!

There were footsteps once more. He rushed to the open-yet-not-open door. He could not look out to see who was coming down the corridor. He could only wait.

IT WAS the guard again. "Get back from the field," he barked. "Step back with your hands in front of you." There was an officer with him.

Biron retreated. The other's neutronic whip was on him, unwaveringly. Biron said, "The other man with you is not Aratap. I want to speak to the Commissioner."

The officer said, "If Gillbret oth Hinriad is ill, you don't want to see the Commissioner. You want to see a doctor."

The force-field was down, with a dim blue spark showing as contact broke. The officer entered and Biron could see the Medical Group insignia on his uniform.

Biron stepped in front of him. "All right, now listen to me. This ship mustn't Jump. The Commissioner is the only one who can see to that, and I must speak to him. Do you understand that? You're an officer. Have him awakened."

The doctor put out an arm to brush Biron aside, and Biron batted it away. The doctor cried out sharply and called, "Guard, get this man out of here."

THE guard stepped forward and Biron dived. They went thumping down together, and Biron swarmed up along the guard's body, seizing first the shoulder and then the wrist of the arm that was trying to bring its whip down upon him.

For a moment, they remained frozen, straining against one another, and then Biron caught motion at the corner of his eye. The medical officer was rushing past them to sound the alarm.

Biron's hand, the one not holding the other's whip-wrist, shot out and seized the officer's ankle. The guard writhed nearly free, and the officer kicked out wildly at him, but, with the veins standing out on his neck and temples, Biron pulled desperately with each hand.

The officer went down, shouting hoarsely. The guard's whip clattered to the floor with a harsh sound. Biron fell upon it, rolled with it, and came up on his knees and one hand. In his other was the whip.

"Not a sound," he gasped. "Not one sound. Drop anything else you've got."

The guard, staggering to his feet, his tunic ripped, glared hatred and tossed a short, metal-weighted, plastic club away from himself. The doctor was unarmed.

Biron gathered up the club. He said, "Sorry. I have nothing to tie and gag you with and no time anyway."

The whip flashed dimly once, twice. First the guard and then the doctor stiffened in agonized immobility and dropped solidly, in one piece, legs and arms bent grotesquely out from their bodies in the attitude they had last assumed before the whip struck.

BIRON turned to Gillbret, who was watching with dull, soundless vacuity.

"Sorry," said Biron, "but you, too, Gillbret," and the whip flashed a third time.

The vacuous expression was frozen solid as Gillbret lay there on his side.

The force-field was still down and Biron stepped out into the corridor. It was empty. Only the watch and the night-details would be up. There would be no time to try to locate Aratap. It would have to be straight for the engine room.

He set off toward the bow.

A man in engineer's work-clothes hurried past him.

"When's the next Jump?" called out Biron.

"About half an hour," the engineer returned over his shoulder.

"Engine room straight ahead?"

"And up the ramp." The man turned suddenly. "Who are you?"

Biron did not bother to answer. The whip flared a fourth time. He stepped over the body and went on. Half an hour left.

He heard the noise of men as he sped up the steep ramp. The light

ahead was white, not purple. He hesitated. Then he put the whip into his pocket. They would be busy. There would be no reason for them to suspect him.

He stepped in quickly. The men were pygmies scurrying about the huge matter-energy converters. The room glared with dials; a hundred thousand eyes staring their information out to all who would look. A ship this size, one almost in the class of a large passenger liner, was considerably different from the tiny Tyrannian cruiser he had been used to. There the engines had been all but automatic. Here they were large enough to power a city, and required considerable supervision.

He was on a railed balcony that circled the engine room. In one corner there was a small room in which two men handled computers with flying fingers. He hurried in that direction, while engineers passed him without looking at him.

He stepped through the door. The two at the computers looked at him.

"What's up?" one, a lieutenant, said. "What are you doing here? Get back to your post."

Biron said, "The hyperatomics have been shorted. They've got to be repaired."

"Hold on," said the second. "I've seen this man. He's one of the prisoners. Hold him, Lancy."

He jumped up and was making his way out the other door. Biron

hurled the desk and the computer, seized the belt of the controlman's tunic and pulled him backward.

"Correct," he said. "I'm one of the prisoners. I'm Biron of Widemos. But what I say is true. The hyperatomics are shorted. Have them inspected, if you don't believe me."

The lieutenant found himself staring at a neuronic whip. He said, carefully, "It can't be done, sir, without orders from the Officer of the Day, or from the Commissioner. It would mean changing the Jump calculations and delaying us for hours."

"Get the authority then. Get the Commissioner."

"May I use the communicator?"

"Hurry."

The lieutenant's arm reached out for the flaring mouthpiece of the communicator, and, halfway there, plummeted down hard upon the row of knobs at one end of his desk. Bells clamored in every corner of the ship.

Biron's club was too late. It came down hard upon the lieutenant's wrist. The lieutenant snatched it away, moaning over it, but the warning signals were sounding.

GUARDS were rocketing in upon the balcony through every entrance. Biron slammed out of the control room, looked in either direction, then hopped the railing.

He plummeted down, landing

with knees bent, and rolled. He rolled as rapidly as he could to prevent setting himself up as a target. He heard the soft hissing of a needle-gun near his ear, and then he was in the shadow of one of the engines.

He stood up in a crouch, huddling beneath its curve. His right leg was a stabbing pain. Gravity was high near the ship's hull and the drop had been a long one; he had sprained his knee badly. It meant that there would be no more chase. If he won out, it was to be from where he stood.

He shouted, "Hold your fire! I am unarmed." First the club and then the whip he had taken from the guard went spinning toward the center of the engine room. They lay there in hard impotence and plain view. "The hyperatomics are shorted. A Jump will mean the death of us all. I ask only that you check the motors. You will lose a few hours, perhaps, if I am wrong. You will save your lives if I am right."

Someone called, "Go down there and get him."

Biron yelled; "Will you sell your lives rather than listen?"

He heard the cautious sound of many feet, and shrank back. Then there was a frictional sound above. A soldier was sliding down the engine toward him, hugging its faintly warm skin as though it were a bride. Biron waited. He could still use his arms.

And then the voice came from above, unnaturally loud, penetrating every corner of the huge room. It said, "Back to your places. Halt preparations for the Jump. Check the hyperatomics."

It was Aratap, speaking through the public address system. The order then came, "Bring the young man to me."

Biron allowed himself to be taken. There were two soldiers on each side, holding him as though they expected him to explode. He tried to force himself to walk naturally, but he was limping in pain.

ARATAP was only in semi-dress. His eyes seemed different; faded, peering, unfocused. It occurred to Biron that the man wore contact lenses.

Aratap said, "You have created quite a stir, Farrill."

"It was necessary to save our lives. Send these guards away. As long as the engines are being investigated, there's nothing more I intend doing."

"They will stay just a while. At least, until I hear from my engineers."

They waited, silently, as the minutes dragged on, and then there was the flash of red upon the frosted-glass circle above the glowing lettering that read "Engine Room."

Aratap opened contact. "Make your report!"

The words that came were crisp and hurried. "Hyperatomics on the

C Bank completely shorted. Repairs under way."

Aratap said, "Have Jump recalculated for plus six hours." He turned to Biron coolly. "You were right."

He gestured. The guards saluted, turned on their heels, and left one by one with a smooth precision.

Aratap said, "The details, please."

"Gillbret oth Hinriad, during his stay in the engine room, thought the shorting to be a good idea. The man is not responsible for his actions and must not be punished for it."

Aratap nodded. "He has not been considered responsible for years. That portion of the events will remain between you and me only. However, my interest and curiosity are aroused by your reasons for preventing the destruction of the ship. You are surely not afraid to die in a good cause."

"There is no cause," said Biron. "There is no 'Rebellion World.' I have told you so already and I repeat it. Lingane was the center of revolt and that has been checked. I was interested only in tracking down my father's murderer, the lady Artemisia only in escaping an unwanted marriage. As for Gillbret, he is mad."

"Yet the Autarch believed in the existence of this mysterious planet. Surely, he gave me the co-ordinates of something."

"His belief is based on a mad-

man's dream. Gillbret dreamed something twenty years ago. Using that as a basis, the Autarch calculated five possible planets as the site of this dream-world. It is all nonsense."

The Commissioner said, "And yet something disturbs me."

"What?"

"You are working so hard to persuade me. Surely, I will find all this out for myself once I have made the Jump. It is not impossible that, in desperation, one of you might endanger the ship and the other save it as a complicated method for convincing me that I need look no farther for the 'Rebellion World.' I would say to myself: If there were really such a world, young Farrill would have let the ship vaporize, for he is a young man and romantically capable of dying what he would consider a hero's death. Since he has risked his life to prevent that happening Gillbret is mad, there is no 'Rebellion World' and I will return without further searching. Am I too complicated for you?"

"No. I understand you."

"And since you have saved our lives, you will receive appropriate consideration in the Khan's Court. You will have saved your life and your cause. No, young sir, I am not quite so ready to believe the obvious. We will still make the Jump."

"I have no objections," said Biron.

"You are cool," said Aratap. "It is a pity you were not born one of us." He meant it as a compliment. "We'll take you back to your cell now, and replace the force-field. A simple precaution."

THE guard that Biron had knocked out was no longer



there when they returned to the prison room, but the doctor was. He was bending over the still unconscious form of Gillbret.

Aratap said, "Is he still under?"

At his voice, the doctor jumped up. "The effects of the whip have worn off, Commissioner, but the man is not young and has been under a strain. I don't know if he will recover."

Biron felt horror fill him. He dropped to his knees, disregarding the wrenching pain, and reached out a hand to touch Gillbret's shoulder gently.

"Gil," he whispered. He watched the other's damp, white face anxiously.

"Out of the way, man." The Medical Officer was scowling at him. He removed the black medical wallet from an inner pocket.

"At least the hypodermics aren't broken," he grumbled. He leaned over Gillbret, the hypodermic, filled with its colorless fluid, poised. It sank deep, and the plunger pressed inward automatically. The doctor tossed it aside and they waited.

Gillbret's eyes flickered, then opened. For a while, they stared unseeingly. When he spoke finally, his voice was a whisper. "I can't see, Biron. I can't see."

Biron leaned close again. "It's all right, Gil. Just rest."

"I don't want to." He tried to



struggle upright. "Biron, when are they Jumping?"

"Soon, soon!"

"Stay with me, then. I don't want to die alone." His fingers clutched feebly, and then relaxed. His head lolled backward.

The doctor stooped, then straightened, "We were too late."

Tears stung at Biron's eyelids. "I'm sorry, Gil," he said. "You didn't know. You didn't understand."

THEY were hard hours for Biron. Aratap had refused to allow him to attend the ceremonies involved in the burial of a body at space. Somewhere in the ship, he knew, Gillbret's body would be blasted in an atomic furnace and then exhausted into space, where its atoms might mingle forever with the thin wisps of interstellar matter.

Artemisia and Hinrik would be there. Would they understand? Would *she* understand that he had done only what he had to do?

The doctor had injected the cartilaginous extract that would hasten the healing of Biron's torn ligaments and already the pain in his knee were barely noticeable, but, then, that was only physical pain, anyway. Given a strong will, it could be ignored.

He felt the inner disturbance that meant the ship had Jumped and then the worst time came.

Earlier he had thought his own analysis to be correct. It *had* to be. But what if he were wrong? What if they were now at the very heart of rebellion? The information would go streaking back to Tyrann and the armada would gather. And he himself would die knowing that he might have saved the rebellion; but had risked death to ruin it.

It was during that dark time that he thought of the document again. The document he had once failed to get.

Strange the way the notion of the document came and went. It would be mentioned and then forgotten. There was a mad, intensive search for a "Rebellion World" and yet no search at all for the mysterious vanished document,

Was the emphasis being misplaced?

It occurred to Biron then that Aratap was willing to come upon the "Rebellion World" with a single ship. What was that confidence he had? Could he dare a planet with a ship?

The Autarch had said the document had vanished years before, but then who had it? The Tyranni? Did they have a document the secret of which would allow one ship to destroy a world?

If that were true, it would no longer matter where the "Rebellion World" was, or if it existed at all.

Time passed and finally Aratap entered. Biron got to his feet.

Aratap said, "We have reached the star in question. There *is* a star there. The co-ordinates given us by the Autarch were correct."

"Well?"

"But there is no need to inspect it for planets. The star, I am told by my astrogators, was a nova less than a million years ago. If it had planets then, they were destroyed. It is a white dwarf now. It can have no planets."

Biron stared. "Then—"

Aratap said, "So you are right. There is no 'Rebellion World.'"

CHAPTER XXII

There!

ALL of Aratap's philosophy could not completely wipe out the feeling of regret within him. For a while, he had not been himself, but his father over again. He, too, these last weeks had been leading a squadron of ships against the enemies of the Khan.

But these were degenerate days and where there might have been a "Rebellion World," there was none. There were no enemies of the Khan after all; no worlds to gain. He remained only a Commissioner, a politician, still condemned to the soothing of little troubles. No more.

Yet regret was a useless emotion. It accomplished nothing.

He sat down and motioned Biron

into a seat as well. "I want to talk to you."

The young man was staring solemnly at him, and Aratap found himself somewhat amazed that they had met first less than a month ago. The boy was older now, far more than a month older, and he had lost his fear. Aratap thought to himself, "I am growing completely decadent. How many of us are beginning to like individuals among our subjects? How many of us wish them well?"

He said, "I am going to release the Director and his daughter. Naturally, it is the politically intelligent thing to do. In fact, it is politically inevitable. I think, though, that I will release them now and send them back on the *Remorseless*. Would you care to pilot them?"

Biron said, "Are you freeing me?"

"Yes."

"Why?"

"You saved my ship; and my life as well."

"I doubt that personal gratitude would influence your actions in matters of state."

Aratap was within a hair of laughing outright. He *did* like the boy. "Then I'll give you another reason. As long as I was tracking a giant conspiracy against the Khan, you were dangerous. When that giant conspiracy failed to materialize; when all I had was a Lin-

ganian cabal of which the leader is dead; you were no longer dangerous. In fact, it would be dangerous to try either you or the Linganian captives.

"The trials would be in Linganian courts and therefore not under our full control. They would inevitably involve discussion of the so-called 'Rebellion World.' And though there is none, half the subjects of Tyrann would have a concept to rally round, a reason for revolt, a hope for the future. The Tyranni realm would not be free of rebellion this side of a century."

"**T**HEN you free us all?"

"It will not be exactly freedom since none of you are exactly loyal. We will deal with Lingane in our own way, and the next Autarch will find himself bound by closer ties to the Khan. It will be no longer an 'Associated Power' and trials involving Linganiens will not necessarily be tried in Linganian courts hereafter. Those involved in the conspiracy, including those in our hands now, will be exiled to worlds nearer Tyrann where they will be fairly harmless. You, for example, cannot return to Nepheles and need not expect to be restored to your Ranchy. You will stay on Rhodia, along with Colonel Rizzett."

"Good enough," said Biron, "but what of the lady Artemisia's

marriage to that—nobleman?"

"You wish it stopped?"

"You know that we would like to marry each other. You said once there might be some way of stopping the Tyranni affair."

"At the time I said that I was trying to accomplish something. What is the old saying? 'The lies of lovers and diplomats shall be forgiven them.' "

"But there *is* a way, Commissioner. It need only be pointed out to the Khan that when a powerful courtier would marry into an important subject family, it may be motives of ambition that lead him on. A revolt may be led by an ambitious Tyrannian as easily as by an ambitious Linganian."

Aratap did laugh this time. "You reason like one of us. But it wouldn't work. Would you want my advice?"

"What would it be?"

"Marry her yourself, quickly. A thing once done would be difficult to undo under the circumstances. We would have to find another woman for Pohang."

Biron hesitated. Then he put out a hand. "Thank you, sir."

Aratap took it. "I don't like Pohang particularly, anyway. Still, there is one thing further for you to remember. Don't let ambition mislead you. Though you marry the Director's daughter, you will never yourself be Director. You are not the type."

ARATAP watched the shrink-plate and was glad the decision had been made. The young man was free; a message was already on its way to Tyrann through the sub-ether. Major Andros would undoubtedly swell into apoplexy, and there would undoubtedly be men at court to demand his recall as Commissioner.

If necessary, he would travel to Tyrann. Somehow he would see the Khan and make him listen. Given all the facts, the King of Kings would see plainly that no other course of action was possible, and thereafter Aratap could defy any possible combination of enemies.

The *Remorseless* was only a gleaming dot now, scarcely distinguishable from the stars that were beginning to surround it now that they were emerging from the Nebula.

Rizzett watched the shrinking Tyrannian flagship in the visiplate.

He said, "So the man let us go! You know, if the Tyranni were all like him, damned if I wouldn't join their fleet. It upsets me in a way. I have definite notions of what Tyranni are like, and he doesn't fit. Do you suppose he can hear what we say?"

Biron set the automatic controls and swiveled in the pilot's seat. "Of course not. He can follow us

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through hyper-space as he did before, but I don't think he can put a spy beam on us. You remember that when he first captured us, all he knew about us was what he overheard on the fourth planet. No more."

Artemisia stepped into the pilot room, her finger on her lips. "Not too loudly," she said. "I think he's sleeping now. It won't be long before we reach Rhodia, will it, Biron?"

"We can do it in one Jump, Arta. Aratap had it calculated for us."

Rizzett said, "I've got to wash my hands."

They watched him leave, and then she was in Biron's arms. He kissed her on forehead and eyes, then found her lips as his arms tensed about her. The kiss came to a lingering and breathless end. She said, "I love you very much," and he said, "I love you more than I can say." The conversation that followed was both as unoriginal as that and as satisfying.

Biron said after a while, "Will he marry us before we land?"

Artemisia frowned a little. "I tried to explain that he's Director and captain of the ship and that there are no Tyranni here. I don't know, though; he's quite upset. After he's rested, I'll try again."

Biron laughed softly. "Don't worry. He'll be persuaded."

Rizzett's footsteps were noisy as he returned. He said, "I wish we still had the trailer."

Biron said, "We'll be on Rhodia in a matter of hours. We'll be jumping soon."

"I know." Rizzett scowled. "And we'll stay on Rhodia till we die. Not that I'm complaining over-loud; I'm glad I'm alive. But it's a silly end to it all."

"**T**HAT hasn't been any ending," said Biron, softly.

Rizzett looked up. "You mean we can start all over? No, I don't think so. You can, perhaps, but not I. I'm too old and there's nothing left for me. Lingane will be dragged into line and I'll never see it again. That bothers me most of all, I think. I was born there and lived there all my life. I won't be but half a man anywhere else. You're young; you'll forget Nephe-los."

"There's more to life than a home planet, Tedor. It's been our great shortcoming in the past centuries that we've been unable to recognize that fact. *All* planets are our home planets."

"Maybe. I don't know. If there *had* been a 'Rebellion World,' why, then, it might have been so."

"There *is* a 'Rebellion World,' Tedor."

Rizzett said, sharply, "I'm in no mood for that, Biron."

"It's the truth. There is such a world and I know its location. I might have known it weeks ago, and so might anyone in our party. The facts were all there. They were

knocking at my mind without being able to get in until that moment on the fourth planet when you and I had beaten down Jonti. Do you remember him standing there, saying that we would never find the fifth planet, without his help? Do you remember his words?"

"Exactly? No."

"I think I do. He said, 'There is an average of seventy cubic light years per star. If you work by trial and error, without me, the odds are two hundred fifty quadrillion to one against your coming within a billion miles of any star. *Any* star!' It was at that moment, I think, that the facts got into my mind. I could feel the click."

"Nothing clicks in my mind," objected Rizzett. "Suppose you explain a bit."

Artemisia said, "I don't know what you mean, Biron."

"Don't you see that it is exactly those odds which Gillbret is supposed to have defeated? You remember his story. The meteor hit, deflected his ship's course, and at the end of its Jumps, it was actually *within* a stellar system. That could have happened only by an incredible coincidence."

"**T**HEN it was a madman's story and there is no 'Rebellion World'."

"Unless there is a condition under which the odds against landing within a stellar system are less incredible," said Biron, "and there is

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such a condition. In fact, there is one set of circumstances, and only one, under which he must have reached a system. It would have been inevitable."

"Well?"

"You remember the Autarch's reasoning. The engines of Gillbret's ship were not interfered with, so the power of the hyperatomic thrusts—or, in other words, the length of the Jumps—remained unchanged. Only their direction was changed in such a way that one of five stars in a cosmically vast area of the Nebula was reached. It was an interpretation which, on the very face of it, was improbable."

"But the alternative?"

"Why, that neither power nor direction was altered. There is no real reason to suppose the direction of drive to have been interfered with. That was only assumption. What if the ship had simply followed its original course? It had been aimed at a stellar system; therefore it ended in a stellar system. The matter of odds doesn't enter."

"But the stellar system it was aimed at—"

"Was that of Rhodia. So he went to Rhodia. It's so obvious that it's difficult to grasp."

Artemisia said, "But then the 'Rebellion World' must be at home. That's impossible."

"Why impossible? It is somewhere in the Rhodian system. There are two ways of hiding an object.

You can put it where no one can find it, as, for instance, within the Horsehead Nebula. Or else you can put it where no one would ever think of looking, right in front of their eyes.

"Consider what happened to Gillbret after landing on the 'Rebellion World.' He was returned to Rhodia alive. His theory was that this was in order to prevent a Tyranni search for the ship which might come dangerously close to the 'World' itself. But then why was he kept alive? If the ship had been returned with Gillbret dead, the same purpose would have been accomplished and there would have been no chance of Gillbret's talking, as, eventually, he did.

"Again that can only be explained by supposing the 'Rebellion World' to be within the Rhodian system. Gillbret was a Hinriad and where else would there be such respect for the life of a Hinriad but in Rhodia?"

ARTEMISIA'S hands clenched spasmodically. "But if what you say is true, Biron, then father is in terrible danger."

"And has been for twenty years," agreed Biron. "But perhaps not in the manner you think. Gillbret once told me how difficult it was to pretend to be a dilettante, to pretend so hard that one had to live the part even with friends and even when alone. Of course, with him, poor fellow, it was largely self-

dramatization. He didn't really act. His real self came out easily enough with you, Arta. It showed to the Autarch. He even found it necessary to show it to me on fairly short acquaintance.

"But it is possible, I suppose, to really live such a life completely, if your reasons are sufficiently important. A man might live a lie even to his daughter; be willing to see her miserably married rather than risk a life-work that depended on complete Tyranni trust; be willing to seem half a madman—"

Artemisia said, huskily, "You can't mean what you're saying."

"There is no other meaning possible, Arta. He has been Director

over twenty years. In that time, Rhodia has been continually strengthened by territory granted it by the Tyranni, because they felt it would be safe with him. For twenty years, he has organized rebellion without interference from them, because he was so obviously harmless."

"You're guessing, Biron," said Rizzett, "and this kind of guess is as dangerous as the ones we've made before."

Biron said, "This is no guess. I told Jonti in that last discussion of ours that he, not the Director, must have been the traitor who murdered my father—because my father would never have been foolish

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enough to trust the Director with any incriminating information. But the point is—and I knew it at the time—that this was just what my father did. Gillbret learned of Jonti's conspiratorial role through what he overheard in the discussions between my father and the Director. There is no other way in which he could have learned it.

"But a stick points both ways. We thought my father was working with Jonti and trying to enlist the support of the Director. Why is it not equally probable, or even more probable, that he was working with the Director—and that his role within Jonti's organization was as an agent of the 'Rebellion World,' attempting to prevent a premature explosion on Lingane that would ruin two decades of careful planning?

"Why do you suppose it seemed so important to me to save Aratap's ship, when Gillbret shorted the motors? It wasn't for myself. I didn't, at the time, think Aratap would free me, no matter what. It wasn't even for you, Arta. It was to save the Director. He was the important man among us. Poor Gillbret didn't understand that."

RIZZETT shook his head. "I'm sorry. I just can't make myself believe all that."

It was a new voice that spoke. "You may as well. It is true." The Director was standing just outside the door, tall and somber-eyed. It

was his voice and yet not quite his voice, for it was crisp and sure of itself.

Artemisia ran to him. "Father! Biron says—"

"I heard what Biron said." He was stroking her hair. "And it is true. I would even have let your marriage take place."

She stepped back from him, almost in embarrassment. "You sound so different. You sound almost as if—"

"As if I weren't your father." He said it sadly. "It will not be for long, Arta. When we are back on Rhodia, I will be as you knew me and you must accept me so."

Rizzett stared at him, his usually ruddy complexion as gray as his hair. Biron was holding his breath.

Hinrik said, "Come here, Biron." He placed a hand on Biron's shoulder. "There was a time, young man, when I was ready to sacrifice your life. The time may come again in the future. Until a certain day, I can protect neither of you. I can be nothing but what I have always seemed. Do you understand that?"

Each nodded.

"Unfortunately," said Hinrik, "damage has been done. Twenty years ago, I was not as hardened to my role as I am today. I should have ordered Gillbret killed, but I could not. Because I did not, it is now known that there is a 'Rebellion World' and I am its leader."

"Only we know that," said Biron.

Hinrik smiled bitterly. "You think that because you are young. Do you think Aratap is less intelligent than yourself? The reasoning by which you determined the location and leadership of the 'Rebellion World' is based on facts known to him, and he can reason as well as you. It is merely that he is older, more cautious, that he has grave responsibilities. He must be certain.

"Do you think he released you out of sentiment? I believe that you have been freed now for the same reason you were freed once before; simply that you might lead him farther along the path that leads to me."

BIRON was pale. "Then I must leave Rhodia?"

"No. That would be fatal. There would seem no reason for you to leave, save the true one. Stay with me and they will remain uncertain. My plans are nearly completed. One more year, perhaps less."

"But, Director, there are factors you may not be aware of. There is the matter of the document—"

"For which your father was searching?"

"Yes."

"Your father, my boy, did not know all there was to know. It is not safe to have anyone in possession of all the facts. The old Rancher discovered the existence of the document independently in the references to it in my old library.

I'll give him credit; he recognized its significance. But if he had consulted me, I would have told him it was no longer on Earth."

"That's exactly it, sir. I am certain the Tyranni have it."

"Certainly not. I have it. I've had it for twenty years. It was what started the 'Rebellion World,' for it was only when I had it that I knew we could hold our winnings once we had won."

"It is a weapon, then."

"It is the strongest weapon in the universe. It will destroy the Tyranni and us alike, but will save the Nebular Kingdoms. Without it, we could defeat the Tyranni perhaps, but we would only have exchanged one feudal despotism for another and, as the Tyranni are plotted against, we would be plotted against. We and they must both be delivered into the ashcan of outmoded political systems. The time for maturity has come as it once came on the planet Earth, and there will be a new kind of government, a kind that has never yet been tried in the Galaxy. There will be no Khans, nor Autarchs, Directors, nor Ranchers."

"In the name of Space," roared Rizzett, "what will there be?"

"People."

"People? How can they govern? There must be some one person to make decisions."

"There is a way. The blueprint I have dealt with a small section of one planet, but it can be adapted to

all the Galaxy." The Director smiled. "Come, children, I may as well marry you. It can do little more harm now."

Biron's hand tightly enclosed Artemisia's and she was smiling at him. They felt the queer, inward twinge as the *Remorseless* made its single pre-calculated Jump.

Biron said, "Before you start, sir, will you tell me something about the blueprint you mention, so that my curiosity will be satisfied and I can keep my mind on Arta?"

Artemisia laughed and said, "You had better do it, father. I couldn't bear an abstracted groom."

Hinrik smiled. "I know the

document by heart. Listen to me."

And with Rhodia's sun bright on the visiplate, Hinrik began with those words that were older, far older, than the civilization of any of the planets in the Galaxy save one:

"We, the people of the United States—but substitute the United Galaxy—in order to form a more perfect Union, establish justice, insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America . . ."

—ISAAC ASIMOV

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